CONTENTS OF SUPPLEMENT.

PERSONAL 189
Obituary 189
ENGINEERING SOCIETIES 189
Coming Technical Meetings 189
NEW PUBLICATIONS 190
Trade Publications 191
CONSTRUCTION NEWS:
Condensed List of Contracts Pending 191
Railways 191
Street and Electric Railways 192
Electric Light and Power 192
Bridges 193
Buildings 193
Water-Works 194
Irrigation 194
Sewerage 194
Garbage Disposal and Street Cleaning 194
Streets and Roads 195
Manufacturing Plants 195
Gas Plants 195
Miscellaneous Contracts 195
Contract Prices 196
INDUSTRIAL NOTES 196

PERSONAL.

Mr. John H. Mabbett has been appointed Water Commissioner of Saratoga, N. Y., to succeed Mr. Mark M. Cohn, deceased.

Mr. C. D. McKelvey, General Superintendent of the New York, Susquehanna & Western R. R., with headquarters in Jersey City, N. J., has resigned.

Prof. Sidney H. Short, Second Vice-President of the Walker Co., Cleveland, O., electrical manufacturers, has resigned, and will make a trip to Europe, it is stated.

Mr. Chas. L. Kesling, C. E., sailed Dec. 14 for Havana as Engineer for Drake & Stratton, who have a government contract for building a pier and a steam railway at Havana.

Mr. Chas. E. Webster, Chief Engineer of the Lehigh Valley R. R., with headquarters at South Bethlehem, Pa., has resigned his position, which he has held for the past 15 years.

Mr. Chas. P. Costello, of Portland, Me., has been appointed Superintendent and General Manager of the Water-Works of Springfield, Mo., which are controlled by eastern capitalists.

Mr. Willard A. Smith, of Chicago, Ill., has been appointed Director of the Department of Transportation and Civil Engineering of the U. S. Commission to the Paris Exposition of 1900.

Mr. Julius Le Roy Adams, Jun. Am. Soc. C. E., of Brooklyn, N. Y., son of Col. Julius W. Adams, Past President Am. Soc. C. E., was married Dec. 6, at Yonkers, N. Y., to Miss Georgiana Heermance.

The firm of Wilson Bros. & Co., architects, civil and consulting engineers, Drexel Building, Philadelphia, after Feb. 1, 1899, will be made up of the following members: Messrs. Joseph M. Wilson, Henry W. Wilson, John McArthur Harris and Howard S. Richards.

Mr. J. C. Patterson, Resident Engineer of the Great Northern Ry. Line, with headquarters at Great Falls, Mont., has resigned to accept the position of Chief Engineer of the Butte, Anaconda & Pacific Ry., with headquarters at Anaconda, Mont.

Mr. J. C. Howard, Assistant Superintendent of the Chicago, Burlington & Northern Ry., with headquarters in Minneapolis, Minn., has been appointed General Manager of the Brainerd & Northern Minnesota Ry., with headquarters at Brainerd, Minn., to succeed Mr. E. H. Hoar.

Mr. J. H. Manning, Master Mechanic of the shops of the Union Pacific R. R., Omaha, Neb., has been transferred to Cheyenne, Wyo., to succeed Mr. T. A. Davies, assigned to other duties. Mr. M. K. Barnum, of North Platte, Neb., has been appointed to succeed Mr. Manning at Omaha.

Mr. Gustav R. Tuska, Assoc. M. Am. Soc. C. E., Chief Engineer of the Panama R. R., with headquarters in New York city, arrived here Dec. 12, on the steamer "Finance" from Colon, where he has been acting as an expert in adjusting matters between the railway and the Panama Canal Co.

Mr. Samuel M. Gray, M. Am. Soc. C. E., of Providence, R. I., has been engaged as Consulting Engineer, to advise the city of Petersburg, Va., as to the best kind of street pavement to be laid, and to prepare specifications for the same. The city expects to expend upwards of $100,000 on this improvement.

Mr. Edward H. Lee, Assistant Engineer, in charge of the track elevation on the Chicago & Western Indiana R. R. and the Belt Ry. Co., of Chicago, has been appointed Chief Engineer and General Roadmaster, to succeed Mr. F. C. Doran, deceased. Mr. Lee was formerly for several years Chief Engineer of the Elgin, Joliet & Eastern Ry.

Lieut. Richmond P. Hobson, Assistant Naval Constructor, U. S. Navy, the chief hero of the "Merrimac" incident, of the Spanish War, has been promoted by President McKinley to be Naval Constructor, and has been ordered to the Asiatic station for duty in connection with the raising and repairing of vessels captured at Manila.

Mr. Edward C. Shankland, M. Am. Soc. C. E., has withdrawn from the firm of D. H. Burnham & Co., architects, of Chicago, Ill., and has formed a partnership with his brother, Mr. R. M. Shankland, mechanical engineer, under the firm name of E. C. & R. M. Shankland, civil engineers, with offices at 816 The Rookery, Chicago. The firm will make a specialty of building construction and foundations, especially of office buildings, warehouses and factories.

Col. Wm. Ludlow, M. Am. Soc. C. E., Corps of Engineers, U. S. Army, and Major-General of Volunteers, has been appointed by President McKinley, Military and Civil Governor of Havana, Cuba, to report there before Jan. 1 next. General Ludlow's civil engineering experience, as well as his tried administrative ability acquired as Engineer Commissioner of the District of Columbia, especially fits him for this important post.

The following have been nominated as commissioners to codify the building laws of New York city: Wm. J. Fryer, Robt. A. McCafferty and Cornelius O'Reilly and Geo. A. Just, M. Am. Soc. C. E., of Manhattan Borough; Randolph L. Daus and Bernard Gallagher, of Brooklyn Borough; Daniel Callahan, of Queens; Assistant Corporation Council Rollin M. Morgan and Building Commissioners Thos. J. Brady, John Gullfoyle and Daniel Campbell.

OBITUARY.

Mr. Barnard Feeney, contractor, of Union Hill, N. J., died Dec. 4, aged 49.

Mr. Richard C. Anderson, mining engineer, of Deadwood, S. Dak., died Dec. 2.

Mr. James McCloud, of the firm of Jas. McCloud & Co., contractors, of Williamsport, Pa., and Columbus, O., died Dec. 2, in the latter city, aged 58.

Mr. Geo. Richardson, for many years Superintendent of the private water-works plant at Bridgeport, Conn., died in that city on Dec. 12, at the age of 51 years.

Mr. Andrew Hallen, Chief Engineer of the Pennsylvania Coal Co., Pittsburg, Pa., died Dec. 9, as the result of injuries received in a mine explosion Dec. 6. He was 36 years of age.

Mr. Geo. Tisdale Clark, a member of the board of arbitration to determine the price to be paid by the village of Fulton, N. Y., for the water-works of the private water company there, died at Oswego, N. Y., on Dec. 9.

Mr. George Richardson, Superintendent of the Bridgeport Hydraulic Co., Bridgeport, Conn., which supplies that city with water, died at his home, Dec. 11, aged 52. He was the son of the late Joseph Richardson, contractor and builder, of New York.

Mr. James McGee, Manager of the Devoe Works of the Standard Oil Co., died at his home in Plainfield, N. J., Dec. 6, aged 72. He was a member of the American Geographical Society, and of the American Museum of Natural History, as well as several other societies.

Mr. Geo. H. Parish, President of the Red Ash Coal Co., died at his home in Wilkesbarre, Pa., Dec. 11, aged 79. He built a large portion of the Louisville & Nashville R. R., and was interested in a number of other railways. He organized a number of coal companies and was the founder of the Vulcan Iron Works, of Scranton, Pa.

Lieut. Charles D. Kennedy, Manager of the Judson Powder Co., Berkeley, Cal., was killed, Dec. 7, by an explosion in the works. He was born in New Bedford, Mass., and graduated from service as cadet on the U. S. revenue cutter "Salmon P. Chase" in 1882. He was appointed to the U. S. revenue cutter "Dexter" and later distinguished himself in the Arctic service on the "Bear," "Rush" and "Corwin." He resigned in 1888 to accept the position he held at the time of his death.

Sir William Anderson, M. Inst. C. E., of London, England, died Dec. 11. He was born in St. Petersburg, Russia, Jan. 5, 1835, of British parentage. In 1849 he went to King's College, London, where he studied applied sciences. He lived in Dublin, Ireland, from 1855 to 1864, engaged in engineering practice and was elected President of the Institution of Civil Engineers of Ireland in 1863. In 1864, he entered the firm of Easton & Amos, London, building the Erith Iron Works. In 1889, he was appointed Director-General of the Royal Ordnance Factories at Woolwich, Waltham Abbey, Enfield and Birmingham. He was elected a Member of the Institution of Civil Engineers in 1869, and was later a Vice-President. He was also a Vice-President of the Institution of Mechanical Engineers, and of the Society of Arts. In 1897 he was knighted and received the degree of Doctor of Civil Laws from Durham University. He was also a Fellow of the Royal Society.

Mr. Samuel McElroy, M. Am. Soc. M. E., a civil engineer, long identified with the public works of Brooklyn, N. Y., died of heart disease in that city, on Dec. 9, aged 74 years. Mr. McElroy was born in Albany, and in early life served as a steam engineer on the U. S. S. "Fulton." As early as 1854 he was an assistant of Gen. Ward B. Burnett, Engineer of the Long Island Water Works Co., in making the surveys for obtaining a constant supply of water from Long Island streams, as a substitute for a well supply. In 1855 Mr. McElroy, as Chief Engineer, prepared the specifications appended to the contract between the Nassau Water Co., the successors of the Brooklyn Water Co., and the Long Island Water-Works Co., with Henry S. Welles & Co., for the construction of a distributing pipe and hydrant system, the Prospect Hill and Ridgewood distributing reservoirs and a closed conduit from the Ridgewood Pumping station to Baiseley's Pond. In the same year Mr. James P. Kirkwood became Chief Engineer, and Mr. McElroy, with Moses Lane, and later Julius W. Adams, was appointed one of the Assistant Engineers for this work. Later McElroy was engaged in laying out streets in the outer wards of Brooklyn and in surrounding towns, and for the last twenty-five years he has been extensively employed as an expert and consulting engineer in matters connected with water supply. As an engineering expert for the city of Brooklyn he was prominently connected with the adjustment of the late controversy between that city and the Long Island Water Supply Co.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

AMERICAN INSTITUTE AND THE HENRY ELECTRICAL SOCIETY.
Dec. 16. "Light," William Hallock, Secy., D. R. Lovejoy, 111 W. 38th St., New York city.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Dec. 16. Secy., F. H. Olmsted, Byrne Bldg., Los Angeles, Cal.

ROCHESTER ENGINEERING SOCIETY.
Dec. 16. Secy., John F. Skinner, Reynolds Library Bldg., Rochester, N. Y.

NORTHWESTERN TRACK AND BRIDGE ASSOCIATION.
Dec. 16. Secy., D. W. Meeker, St. Paul, Minn.

CHICAGO ELECTRICAL ASSOCIATION.
Dec. 16. "Wireless Telegraphy," Arthur V. Abbott. Secy., J. R. Cravath, 825 Monadnock Block, Chicago, Ill.

THE DETROIT ENGINEERING SOCIETY.
Dec. 16. "The Civil Engineer and National Public Works," Geo. Y. Wisner. Secy., Henry Goldmark, Wayne Co., Sav. Bank Bldg., Detroit, Mich.

THE ENGINEERS' CLUB OF PHILADELPHIA.
Dec. 17. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.

ENGINEERS' CLUB OF COLUMBUS.
Dec. 17. Secy., H. M. Gates, 12½ North High St., Columbus, O.

ENGINEERS' CLUB OF PHILADELPHIA.
Dec. 17. Secy., L. F. Rondinella, 1122 Girard St., Philadelphia, Pa.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Dec. 19. Secy., Marshall Morris, 16 Norton Bldg., Louisville, Ky.

ENGINEERS' CLUB OF MINNEAPOLIS.
Dec. 19. Secy., H. E. Smith, 1620 S. E. 14th St., Minneapolis, Minn.

TECHNICAL CLUB OF OMAHA.
Dec. 19. Secy., J. Harry Lawrie, Omaha, Neb.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA
Dec. 20. Secy., R. A. Fessenden, 410 Penn Ave., Pittsburg, Pa.

WESTERN RAILWAY CLUB.
Dec. 20. Secy., F. M. Whyte, 225 Dearborn St., Chicago, Ill.

ENGINEERS' AND ARCHITECTS' ASSOCIATION OF SOUTHERN CALIFORNIA.
Dec. 21. Secy., Frank H. Olmsted, Los Angeles, Cal.

BOSTON SOCIETY OF CIVIL ENGINEERS.
Dec. 21. Secy., S. E. Tinkham, City Hall, Boston, Mass.

WESTERN FOUNDRYMEN'S ASSOCIATION.
Dec. 21. Secy., B. M. Gardner, 1522 Monadnock Block, Chicago, Ill.

ENGINEERS' CLUB OF ST. LOUIS.
Dec. 21. Secy., Richard McCulloch, 2401 N. Spring Ave., St. Louis, Mo.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Dec. 21. "Building Laws" Discussion. Secy., C. W. Hunt, 220 West 57th St., New York City.

WESTERN SOCIETY OF ENGINEERS.
Dec. 21. "Foundations for Railroad Bridge Across the St. Lawrence River at Cornwall, Ont.," George E. Thomas. Secy., N. L. Litten, Monadnock Block, Chicago, Ill.

CANADIAN SOCIETY OF CIVIL ENGINEERS.
Dec. 22. Secy., C. A. McNab, 112 Mansfield St., Montreal, Canada.

ENGINEERING ASSOCIATION OF THE SOUTH.
Dec. 22. Secy., C. B. Wilson, 1000 Broad St., Nashville, Tenn.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
Dec. 27. Secy., Wm. H. Searles, Case Library Bldg., Cleveland.

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
Dec. 28. Secy., Ralph W. Pope, 26 Cortlandt St., New York city.

ENGINEERS' SOCIETY OF WESTERN NEW YORK.
Jan. 2. Secy., H. J. March, Library Bldg., Buffalo, N. Y.

CIVIL ENGINEERS' SOCIETY OF ST. PAUL.
Jan. 2. Secy., C. L. Annan, City Engineer's Office, St. Paul, Minn.

FOUNDRYMEN'S ASSOCIATION, PHILADELPHIA.
Jan. 4. Secy., Howard Evans, Pier 45, Delaware Ave., Philadelphia, Pa.

BROOKLYN INSTITUTE OF ARTS AND SCIENCES.
Jan. 6. "The Electro-Metallurgy of Copper," John B.F. Hereschoff. Secy., Henry L. Weed, Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y.

THE LOUISIANA ENGINEERING SOCIETY.
Jan. 9. Secy., J. F. Coleman, 712 Union St., New Orleans, La.

ENGINEERS' CLUB OF KANSAS CITY.
Jan. 9. Secy., F. W. Tuttle, Baird Bldg., Kansas City, Mo.

DENVER SOCIETY OF CIVIL ENGINEERS.
Jan. 10. Secy., W. B. Lawson, 36 Jacobson Bldg., Denver, Col.

NORTHWEST RAILWAY CLUB.
Jan. 10. Secy., T. A. Foque, Soo Line, Minneapolis, Minn.

NEW ENGLAND RAILWAY CLUB.
Jan. 10. Secy., Edw. L. Janes, P. O. Box 1158, Boston, Mass.

CENTRAL RAILWAY CLUB.
Jan. 13. Secy., H. D. Vought, 114 Fifth Ave., New York city.

ST. LOUIS RAILWAY CLUB.
Jan. 13. Secy., H. H. Roberts, 511 Commercial Bldg., St. Louis, Mo.

SCRANTON ENGINEERS' CLUB.
Jan. 14. Annual meeting. Secy., F. E. Pratt, 730 Madison Ave., Scranton, Pa.

MONTANA SOCIETY OF ENGINEERS.
Jan. 14. Secy., A. S. Hovey, National Bank Bldg., Helena, Mont.

AMERICAN INVENTORS' AND MANUFACTURERS' ASSOCIATION.
Jan. 15. Annual meeting, Washington, D. C. Secy., Arthur Steuart, Washington Loan and Trust Bldg., Washington, D. C.

FRANKLIN INSTITUTE.
Jan. 17. "The Clarification and Purification of Municipal Water Supplies," Mr. Allen Hazen; Jan. 20. "This Country of Ours," John Birkinbine. Secy., Wm. H. Wahl, 15 South Seventh St., Philadelphia, Pa.

NEW YORK RAILROAD CLUB.
Jan. 19. Secy., W. W. Wheatley, 168 Montague St., Brooklyn, N. Y.

ENGINEERS' CLUB OF CINCINNATI.
Jan. 19. Secy., J. F. Wilson, P. O. Box 333, Cincinnati, O.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Jan. 19. Secy., F. A. Charpiot, P. O. Box 13, Savannah, Ga.

THE WEST VIRGINIA SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.
Jan. 19-20. Annual meeting, Charleston, W. Va. Secy., W. Steenbergen, Point Pleasant, W. Va.

NORTHWESTERN ELECTRICAL ASSOCIATION.
Jan. 19-21. Semi-annual meeting, Milwaukee, Wis. Secy., Thos. R. Merceln, 511 Montgomery Bldg., Milwaukee, Wis.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
Jan. 20. Annual meeting. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

NATIONAL ASSOCIATION OF MANUFACTURERS.
Jan. 24-26. Annual convention, Cincinnati, O. Secy., E. P. Wilson, Room A, Chamber of Commerce, Cincinnati, O.

INDIANA ENGINEERING SOCIETY.
Jan. 24-26. Annual meeting, Indianapolis, Ind. Secy., J. B. Nelson, 61 Baldwin Block, Indianapolis, Ind.

MICHIGAN ENGINEERING SOCIETY.
Jan. 24-26. Annual meeting, Lansing, Mich. Secy., F. Hodgman, Climax, Mich.

ILLINOIS SOCIETY OF ENGINEERS AND SURVEYORS.
Jan. 25-27. Annual meeting, Champaign, Ill. Secy., Jacob A. Harman, Peoria, Ill.

WEST VIRGINIA SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.—The 4th annual meeting of this society will be held at Charleston (Kanawha Co.), West Virginia, Jan 19-20. W. Steenbergen, Secy.

ENGINEERS' CLUB OF COLUMBUS.—The regular meeting of this club was held Dec. 3. The subjects discussed were: "Metal Protection, Lead vs. Zinc Paint"; "Best Method of Residence Heating"; "The Metric System: Can It be Brought Into Common Use in America."

MONTANA SOCIETY OF ENGINEERS.—The regular meeting of this society was held at Helena, Mont., Nov. 12, 1898.

The bill providing for the appointment of a State Engineer and defining his duties, was read and discussed, after which Mr. O. Jackson, recently from Alaska, addressed the society upon Railway, Tramway and other improvements now being made in that country. The reading of the paper by F. W. Blackford upon the Butte-Centerville Electric Railway, was postponed until the December meeting.

BROOKLYN ENGINEERS' CLUB.—The annual meeting of this club was held at the Argyle Hotel, Brooklyn, N. Y., on Dec. 8. The early part of the evening was devoted to the consideration of reports of the officers and various committees. This was followed by the election of officers for the ensuing year, as follows: Pres., Walter M. Meserole; Vice-Pres., Henry B. Seaman; Secy., A. J. Provost, Jr.; Treas., Calvin W. Rice.

SCRANTON ENGINEERS' CLUB.—This club held a regular meeting on Dec. 7, at which Mr. Edmund A. Bartt related his experience as a prospector in the Peace River district of the Northwest Territory. During this work he took copious notes of topography and location, which have been of great service to the Canadian Geological Survey, enabling it to correct the existing maps of this district, which he showed to be very inaccurate.

The following officers were nominated for the ensuing year: Pres., W. M. Marple; Vice-Pres., C. C. Rose; Secy., H. W. Rowley; Corres. Secy., Morgan Davis; Treas.; A. C. Lamont; Librarian, A. C. Lister. Directors: James Archbald, Capt. W. A. May and Chas. S. Farrer.

THE CIVIL ENGINEERS' SOCIETY OF ST. PAUL.—The regular meeting of this society was held Dec. 5. An invitation to visit the shops of the Great Northern Ry., extended to the society by the Superintendent, Mr. J. F. Forbes, was accepted. A revised membership list was ordered printed.

The paper of the evening on "The Manufacture of U. S. 12-in. Mortar Carriages" was read by Mr. Oliver Crosby.

The American Hoist & Derrick Co., of St. Paul, have been turning out these carriages at the rate of two per month during the past year. Ten pieces of gun iron, the strength of which was twice that of ordinary cast iron, were exhibited. C. L. Annan, Secy.

AMERICAN INSTITUTE OF MINING ENGINEERS.—The 29th annual meeting of the Institute will be held in New York city, beginning Feb. 21. Hotel headquarters will be at the Murray Hill Hotel, and the sessions will be held, through the courtesy of the American Society of Mechanical Engineers, in its hall, No. 12 West 31st St.

A special topic of discussion at this meeting will be the paper on "The Evolution of Mine-Surveying Instruments," by Dunbar D. Scott, Ironwood, Mich. This paper surveys the history of mine surveying, describing, illustrating and criticising the successive types of apparatus employed in this and other countries.

R. W. Raymond, Secy.

ENGINEERS' CLUB OF ST. LOUIS.—The 480th meeting, which was also the annual meeting, was held Dec. 7, with 53 members and visitors present. The several standing committees presented reports, and the nominating committee presented a list of nominees for 1899. It was announced that the annual supper would be held Dec. 21.

The paper of the evening, by Mr. A. H. Zeller, was then read. The author was a delegate from the Engineers' Club of St. Louis to the celebration of the 50th anniversary of the Civil Engineers of France, and the paper described the manner in which the event was celebrated. After the reading of the paper, a number of lantern slides were exhibited, showing views of engineering works in Paris, Berlin and other European cities.

Richard McCulloch, Secy.

AMERICAN ECONOMIC ASSOCIATION.—The 11th annual meeting of this association will be held at New Haven, Conn., Dec. 27-29. The following are some of the papers to be presented:

Dec. 27.—"The Relation between Economics and Politics." Prof. Arthur T. Hadley.

Dec. 28.—Report of the committee on the 12th Census. Discussions: "Is it possible to get Statistics of Capital and Industry?" "What may and should Statistics of Municipal Finance be made to show?" "Early Canal, Railway, and Banking Enterprises of the States, in Relation to the Growth of Corporations in the United States," Dr. G. S. Callender.

Dec. 29.—Report of the Committee on Banking and Currency; "Dynamic Standards of Wages and Interest," Prof. J. B. Clarke; "The Present Study of Practical Labor Problems in France," Dr. W. F. Willoughby; "Municipal Taxation as a Means of Public Control of Corporations," C. W. Curtis; "The Nature of Municipal Franchises," Dr. Max West.

THE NEW JERSEY SANITARY ASSOCIATION.—The fourth annual meeting of the association was held at Lakewood, N. J., on Dec. 9 and 10. The president, Mr. Vernon H. Davey, Superintendent of the Schools of East Orange, devoted the greater part of his address to school house construction, school sanitation, and hygiene. Floors of school buildings should be made of some wood that will not shrink or splinter, like kiln dried Georgia pine. There should be 18 sq. ft. of floor space for each child. Reliance cannot be placed on gravity systems of ventilation, in mild weather.

A paper on "Methods of Sewage Disposal" was expected from Mr. Rudolph Hering, M. Am. Soc. C. E. He was unable to attend, and Mr. Jas. H. Fuertes, M. Am. Soc. C. E., presented a paper on the same subject. He outlined the various methods in use and spoke hopefully of Cameron's septic tank and Dibden's bacterial filter systems, of which so much is now heard in and from England. These systems, he said, are still in an experimental stage, but promise to simplify the sludge problem. The discussion on this paper was opened by Mr. M. N. Baker, who stated that the concentration of population in some portions of the state, and notably the Passaic valley, made it difficult to find sites for sewage purification plants. This fact, coupled with the economy of co-operation in such matters suggested the desirability of a joint system of sewage disposal, whether the final treatment be dilution or otherwise. Mr. Fuertes said that disposal by dilution sometimes involved the question of temperature. If the water receiving the sewage were cold, nuisance was less likely to result. Mr. Jas. Owen said he had just completed a septic tank for the sewage of a hospital located in Essex county, N. J. The tank has not been put in operation. It will serve about 1,000 people.

Besides acting as a substitute for Mr. Hering, Mr. Fuertes presented a paper on "Public Water Supplies and the Prevention of the Pollution of the Same." Some authorities hold that cities should own the whole drainage area from which their water supply comes. This is generally impracticable for large cities. Some English cities having such ownership do not show, by their typhoid statistics, any advantage over Boston or New York. The securing of a strip of land on the shores of reservoirs, lakes or streams used as water supplies is a practicable and valuable measure. It excludes sources of pollution from close proximity to the water. The drainage of county roads is sometimes kept out of surface supplies abroad, but Mr. Fuertes knew of no such practice here. In New York the State Board of Health, on application from local authorities, formulates rules for the sanitary protection of public water supplies, varying the rules to suit each case. In discussing the paper, Mr. Geo P. Olcott, of East Orange, urged that more attention should be given to the quality of water supplies in planning them, notwithstandihng the pressure often brought to bear in the case of municipal works to keep the cost down. Mr. Wm. Kent, M. Am. Soc. M. E., said that the engineering side of the case was clear, but how about its legal phases in New Jersey? Mr. Baker said the state legislation on the subject had improved of late, but there was great need of central supervision of sources of water supply in New Jersey. The commission recently appointed to investigate stream pollution could render a great service by pointing out the work to be done over the whole state, instead of confining itself to the Passaic River, both it and the public seeming to think it was created to look after one stream, whereas the language of the act includes the streams of the state.

NEW PUBLICATIONS.

LITERARY MAGAZINES.—The November "Contemporary Review" contains a paper by Prof. Ramsay on "The Kinetic Theory of Gases," in which that eminent English scientist explains the remarkable manner in which purely theoretical studies led to the discovery of the new elements, Helium and Neon. In the "Fortnightly," the article of most interest to American readers is a very realistic account of life in the Klondike, written evidently by one who has been through that rough experience.

The December "McClure's" is notable for a paper by Capt. Alfred T. Mahan on the lessons of the Spanish War. He takes occasion to roundly condemn the building of monitors, and remarks that there was not an hour throughout the late war when we would not have been glad to exchange all our six monitors for two battleships of much less cost and total tonnage. In fact he declares that the two popular errors that have worked most injury to the nation's naval strength are that the navy should be designed for defensive instead of offensive action, and that the monitor is an efficient type of war vessel. "McClure's" also contains two good railway stories, one by Mr. John Hill, of the "American Machinist," and the other by Capt. J. E. Brady, describing the life of a train dispatcher.

In "The Cosmopolitan" we find a brief account of the late Col. Waring's work in organizing the street cleaning department of New York city; and Sir Norman Lockyer the English astronomer, tells of the expeditions to India of astronomers of all countries to observe the total eclipse of the sun, which occurred last January. In the Christmas "Harper's," the thrilling story of how the "Winslow" was rescued, is told by Lieut. Ernest E. Mead, of the U. S. Revenue Cutter Service. In "The Coming Fusion of the East and West," an American, long resident in Japan, urges that England, the United States and Japan join hands to rescue China from partition among European nations. The writer appears too enthusiastic, and deals too much in broad generalities to be a very safe guide; but he writes of many recent happenings in the East that are at least worth knowing by those interested in the study of international politics. A much more valuable paper in the same field we find in the December "Scribner," where Hon. Joseph Chamberlain writes on "Recent Developments of Policy in the United States." Mr. Chamberlain outlines the methods by which England has been successful in governing her tropical colonies, and thinks the United States can do as well. In the same magazine the capture of Manila is described by Capt. T. B. Mott; and R. H. Davis tells of life in the rifle-pits before Santiago during the two weeks that elapsed from Cervera's flight to the city's surrender.

The December "Atlantic" has three articles discussing the new "expansion policy," and an excellent paper on "California and the Californians," by President David Starr Jordan, of Leland Stanford University. In the "Review of Reviews," Wm. E. Curtis tells the story of the recent coup d'etat in China, and a very different story it is from that which has appeared in fragmentary shape in the newspapers. Dr. Albert Shaw writes a brief account of Col. Waring's life and work. The most valuable paper in the magazine, however, is that in which Lieut. John H. Parker criticises the methods by which our army supply departments are now conducted and points out the need of a general staff in our army—a need which it is to be hoped the present Congress may supply. "Forest Fires" and the methods of preventing them are considered by Mr. Henry Gannett, of the U. S. Geological Survey, in the December "Forum," and in the same magazine the very limited scope of the Sherman anti-trust act as interpreted by the Courts is explained.

In the December "Popular Science Monthly," Edward Atkinson writes on "The Wheat-Growing Capacity of the United States," and endeavors to prove that we have but just begun to show what we can do in producing breadstuffs to feed the world. "The Reorganization of the Naval Personnel" is the title of a symposium with which the "North American Review" opens. Among the contributors are Theodore Roosevelt, Commodores Philip and Melville and Hon. Francis H. Wilson. "The Latest Aspects of the Nicaragua Canal Problem" are discussed by C. M. Stadden; but the kaleidoscope is changing so rapidly here that this article is hardly up to date when it appears in print. Besides these articles the magazine also contains papers on the "Decision Against Railway Pooling," by President Roswell Miller, and "The Scientific Prevention of Yellow Fever," by Dr. A. H. Doty, Health Officer of the Port of New York. In the December "Century" Naval Constructor Hobson begins the story of the sinking of the "Merrimac," in the attempt to cork up the entrance to Santiago Harbor, and Capt. Sigsbee gives the second installment of his narrative of the loss of the "Maine." These "Century" articles undoubtedly deserve to rank among the most valuable contributions to the history of the recent war that have appeared in any of the magazines.

WATER SUPPLY DEPARTMENT OF QUEENSLAND.—Report of the Hydraulic Engineer, J. B. Henderson, M. Inst. C. E., for 1896-7. Address the Department, Brisbane, Queensland, Australia. Paper; 8 x 13 ins.; pp. 52; tables and plates.

This report contains a variety of interesting information regarding the urban and rural water supply of Queensland, including that from artesian wells. Rainfall and other diagrams and a number of maps are presented, together with some good reproductions of photographs of artesian wells.

DIVISION OF FORESTRY.—U. S. Department of Agriculture. Bulletin No. 19. Progress in Timber Physics. The Bald Cypress (Taxodium distichum). Paper; 11½ x 9¼ ins.; pp. 24.

The Bald Cypress, here described by Mr. Filibert Roth, is one of the important timber trees of the Southern States and differs from other conifers in losing its foliage in the winter. It has many local names but in the trade the adjective is usually dropped. The best authorities figure the supply of cypress at 27,000 million ft. B. M., and the annual cut is placed at about 500 million ft. B. M., mostly from Louisiana. The cypress wood is of dark color, medium weight and strength, great durability,

fine even grain, slow to dry but easily worked, and especially adapted for use as shingles. The report enters fully into specific weights, moisture and shrinkage, strength and test results with differing percentages of moisture.

REVENUE AND EXPENSES OF BOSTON, 1892-6.—Special Publications, Department of Municipal Statistics. No. 1, Estimates, Appropriations and Actual Expenditures of Ordinary Revenue. No. 2, Ordinary Revenue. Address the Department. Paper; 9 × 12 ins.; pp. 105 and 38; tables.

These are the first issues of special publications of the recently established Department of Municipal Statistics. They present in some detail the ordinary receipts and expenditures of the city of Boston for the past five years, together with the estimates by and appropriations to the several departments. The figures were compiled from the reports of the city auditor and were designed, among other things, to aid the city officials in making up their appropriations for the coming year. As a survey of the financial operations of the whole city for five years, by a board having no possible interest in anything but a presentation of facts, these and the proposed supplementary reports promise to be of great value to Boston and suggestiveness to other cities.

TRADE PUBLICATIONS

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3 1-2 x 6 ins.; 6 x 9 ins., and 9 x 12 ins.)

ACETYLENE GAS FOR POPULAR LIGHTING.—Pan-American Acetylene Co., Buffalo, N. Y. Pamph.; 3½ x 6¼ ins.; pp. 32.

This little pamphlet describes the principles of the manufacture of carbide of calcium and of acetylene gas, and advertises the merits of the gas for domestic lighting purposes and of the "Buffalo" gas generator. It gives the best brief popular account of acetylene we have yet seen.

STEAM ENGINES.—The Westinghouse Compound Engine. Westinghouse Machine Co., Pittsburg, Pa. Pamph.; 9 x 6 ins.; pp. 94.

This pamphlet describes and illustrates the well-known Westinghouse automatic cut-off single-acting compound non-condensing engines, and discusses its various points of merit. It is written in an interesting and rather unusual style, and is well worth reading by steam engineers. We notice especially a photographic copy of an office record of a brake, indicator, and steam consumption test of an 11 and 19 × 11-in. engine at three different loads, viz., 113, 61 and 35 HP., showing a water rate per I. HP. per hour of 22.41, 23.61 and 29.15 lbs. and a water rate per brake HP. per hour of 24.16, 27.1 and 38.6 lbs., respectively, for the three different loads. This is no doubt excellent performance for a small non-condensing engine, but to us the most remarkable thing about the record is that, as far as we know, no other engine builder publishes in his catalogue any record whatever of actual steam consumption tests of engines under variable loads. The example set by the Westinghouse Company should be followed by other builders.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Dec. 15.	Bridges (9) and viaduct, Valatie, N. Y. Advertised, Eng. News, Dec. 1 and 8.		Dec. 1
Dec. 15.	Dikes, etc.,	Portland, Ore.	Dec. 8
Dec. 15.	Electric lighting,	Sherbrooke, Que.	Dec. 8
Dec. 15.	Paving (3 streets),	Beaumont, Tex.	Dec. 1
Dec. 15.	Court house,	Garner, Ia.	Dec. 1
Dec. 15.	Railway work, Advertised, Eng. News, Dec. 1 and 8.	New York, N. Y.	Dec. 1
Dec. 15.	Water-works,	Somerville, Tenn.	Dec. 1
	Advertised, Engineering News, Dec. 1.		
Dec. 15.	Electric plant, Advertised, Engineering News, Dec. 1.	Somerville, Tenn.	Dec. 1
Dec. 15.	Church building,	Webster City, Ia.	Nov. 24
Dec. 15.	Warehouses (7),	Havana, Cuba	Dec. 15
Dec. 15.	Repairing asphalt pavements,	Philadelphia.	Dec. 15
Dec. 16.	Fire hose (4,000 ft.),	St. Louis, Mo.	Dec. 15
Dec. 16.	Pipe sewer,	Boston, Mass.	Dec. 15
Dec. 16.	Valves, hydrants, etc.,	Chicago, Ill.	Dec. 15
Dec. 16.	Building bonds,	Youngstown, O.	Dec. 15
Dec. 16.	Water pump,	Millvale, Pa.	Dec. 15
Dec. 16.	Light bonds,	Little Falls, Minn.	Dec. 8
Dec. 16.	Piles, planks, etc.,	New York.	Dec. 8
Dec. 16.	Paving, sewers, etc., Advertised, Engineering News, Dec. 8.	Meadville, Pa.	Dec. 8
Dec. 16.	Water-bonds,	Little Falls, Minn.	Dec. 8
Dec. 17.	Electric plants, etc.,	Brooklyn, N. Y.	Dec. 8
Dec. 17.	Macadam roads (20 miles), Advertised, Engineering News, Nov. 24.	Crown Pt., Ind.	Nov. 24
Dec. 17.	Heating, ventilating, etc.,	Cincinnati, O.	Dec. 1
Dec. 17.	Plank sidewalks, etc.,	Kansas City, Mo.	Dec. 15
Dec. 17.	Pipe sewers,	Owensburg, Ky.	Dec. 15
Dec. 17.	Improving Connecticut Ave.,	Washington.	Dec. 15
Dec. 19.	School buildings,	New York, N. Y.	Dec. 15
Dec. 19.	Removing garbage,	Atlantic City, N. J.	Dec. 15
Dec. 19.	Road,	Atlantic City, N. J.	Dec. 15
Dec. 19.	Shell roads,	Annapolis, Md.	Dec. 15
Dec. 19.	Gravel and brick paving,	Indianapolis, Ind.	Dec. 15
Dec. 19.	Repairing roadway of bridge,	Chicago, Ill.	Dec. 15
Dec. 19.	Grading and crosswalks,	San Mateo, Cal.	Dec. 15
Dec. 19.	Engineers' supplies,	New York, N. Y.	Dec. 15
Dec. 19.	Sidewalk shelters,	Toronto, Ont.	Dec. 15
Dec. 19.	Heating plant, etc.,	Oshkosh, Wis.	Dec. 15
Dec. 19.	Asphalt or brick paving,	Hamilton, O.	Dec. 1
Dec. 19.	Tunnel sewer, Advertised, Eng. News, Nov. 17 and 24.	Newburg, N. Y.	Nov. 17
Dec. 19.	Paving bonds,	Lima, O.	Dec. 8
Dec. 19.	Reformatory building,	Lexington, Ky.	Dec. 8
Dec. 20.	Water pump, Advertised, Eng. News, Dec. 8 and 16.	Dunkirk, N. Y.	Dec. 8
Dec. 20.	Electric plant,	Royal Oak, Mich.	Dec. 8
Dec. 20.	Revetments, Advertised, Eng. News, Nov. 24 to Dec. 15.	Keweenaw Point, Mich.	Nov. 24
Dec. 20.	Electric plant,	Mount Pleasant, Mich.	Dec. 1
Dec. 20.	Police station,	Cincinnati, O.	Dec. 15
Dec. 20.	Bridge work,	Blair, Neb.	Dec. 15
Dec. 20.	Sluiceways,	Wilmington, Del.	Dec. 15
Dec. 20.	Steam heating, etc.,	New York, N. Y.	Dec. 15
Dec. 20.	Asphalt paving,	Buffalo, N. Y.	Dec. 15
Dec. 20.	Fire apparatus, etc.,	Philadelphia, Pa.	Dec. 15
Dec. 20.	Iron bridge, etc.,	Rensselaer, N. Y.	Dec. 15
Dec. 21.	Bridge bonds,	Selma, Ala.	Dec. 15
Dec. 21.	Repair of fireboat,	New York, N. Y.	Dec. 15
Dec. 21.	Electric lights,	Cleveland, O.	Dec. 15
Dec. 21.	Fire apparatus,	New York, N. Y.	Dec. 15
Dec. 21.	School building,	Buffalo, N. Y.	Dec. 15
Dec. 21.	Hospital building work,	New York, N. Y.	Dec. 15
Dec. 21.	Life-saving station,	Toms River, N. J.	Dec. 15
Dec. 21.	Roads and park work,	New York, N. Y.	Dec. 15
Dec. 20.	Macadamizing,	Cincinnati, O.	Dec. 1
Dec. 21.	Street work,	Hoboken, N. J.	Dec. 1
Dec. 21.	Glass for electric lamps,	Cleveland, O.	Dec. 1
Dec. 21.	Court house annex,	Atlanta, Ga.	Nov. 3
Dec. 21.	Bridge,	Charlottetown, P. E. I.	Dec. 8
Dec. 22.	Bridge, superstructure, Advertised, Eng. News, Nov. 10 and 17.	Lorain, O.	Nov. 10
Dec. 22.	Tunnel (500 ft.),	Santa Barbara, Cal.	Dec. 15
Dec. 22.	Park work,	New York, N. Y.	Dec. 15
Dec. 22.	Municipal building,	Brooklyn, N. Y.	Dec. 15
Dec. 22.	Brick paving, Advertised, Eng. News Dec. 8 and 15.	Jacksonville, Fla.	Dec. 8
Dec. 23.	Armory building,	Whitehall, N. Y.	Dec. 15
Dec. 23.	Extending electric plant,	Boston, Mass.	Dec. 15
Dec. 23.	Police station,	New York, N. Y.	Dec. 15
Dec. 23.	Storehouse,	Brooklyn, N. Y.	Dec. 15
Dec. 23.	Police station,	Brooklyn, N. Y.	Dec. 15
Dec. 23.	Police station,	Long Island City, N. Y.	Dec. 15
Dec. 23.	Brick paving, grading, etc.,	Zanesville, O.	Dec. 15
Dec. 23.	Paving and grading,	St. Louis, Mo.	Dec. 15
Dec. 23.	Dredging,	New York, N. Y.	Dec. 15
Dec. 23.	Lumber, etc.,	New York, N. Y.	Dec. 15
Dec. 23.	Public building,	Liverpool, N. S.	Dec. 15
Dec. 23.	Wooden barrel sewer,	New York, N. Y.	Dec. 15
Dec. 23.	Light station, Advertised, Eng. News, Nov. 10 and 17.	Tompkinsville (S. I.), N. Y.	Nov. 17
Dec. 23.	Cement and seawall, Advertised, Eng. News, Dec. 1 to 22.	Fort Morgan, Ala.	Dec. 1
Dec. 23.	Auditorium,	Charleston, S. C.	Dec. 8
Dec. 26.	Electric lighting, Advertised, Engineering News, Dec. 8.	Waterloo, N. Y.	Dec. 8
Dec. 24.	Court house work,	Milwaukee, Wis.	Dec. 15
Dec. 24.	Water-works,	Hawkins Point, Md.	Dec. 15
Dec. 26.	Street work,	Atlantic City, N. J.	Dec. 15
Dec. 26.	Pipe sewers,	South Bend, Ind.	Dec. 8
Dec. 27.	Electric plant,	Woodsfield, O.	Dec. 8
Dec. 27.	Scow boat,	New York, N. Y.	Dec. 15
Dec. 27.	Electric wiring,	Paterson, N. J.	Dec. 15
Dec. 27.	Gas and electric fixtures,	Washington, D. C.	Dec. 15
Dec. 28.	Steel truss bridge (140 ft.),	Ogden, Utah.	Dec. 15
Dec. 28.	Cast-iron pipe sewer,	New York, N. Y.	Dec. 15
Dec. 28.	Steel bridge, Advertised, Eng. News, Dec. 1 to 15.	Norfolk, Va.	Dec. 1
Dec. 28.	Railway bridge, Advertised, Engineering News, Nov. 24.	Chicago, Ill.	Nov. 24
Dec. 29.	Street bonds,	Georgetown, Ky.	Dec. 8
Dec. 30.	Sewers,	East Cleveland, O.	Dec. 8
Dec. 31.	Plans for station, etc.,	Stockholm, Sweden.	June 23
Dec. 31.	Bridge work,	Plattsmouth, Neb.	Dec. 15
Dec. 31.	Steam boilers,	Alexandria, Egypt.	Dec. 15
Dec. 31.	Clearing market grounds,	Cleveland, O.	Dec. 15
Jan. 1.	City hall plans,	Bridgeport, Conn.	Aug. 18
Jan. 1.	Draw bridge,	Cathlamet, Wash.	Nov. 17
Jan. 1.	Water-works,	Pasadena, Cal.	Nov. 17
Jan. 1.	Electric plant,	Pasadena, Cal.	Dec. 1
Jan. 2.	Bridge, Advertised, Eng. News, Sept. 29 and Oct. 6.	Quebec, Que.	Sept. 29
Jan. 2.	Arc lighting,	Vincennes, Ind.	Oct. 27
Jan. 2.	Storm sewer, etc.,	Hamilton, O.	Dec. 8
Jan. 2.	Bridge,	Aspen, Colo.	Dec. 15
Jan. 2.	Sea water pmpg franchise,	Santa Cruz, Cal.	Dec. 15
Jan. 3.	Bridge work,	Nelson, Neb.	Dec. 15
Jan. 3.	Pipe sewers,	Mount Vernon, N. Y.	Dec. 15
Jan. 3.	Sewers,	Cincinnati, O.	Dec. 15
Jan. 3.	Church,	Ashland, Ky.	Dec. 15
Jan. 3.	Court house, jail, etc.,	Balsam Lake, Wis.	Dec. 15
Jan. 3.	Water-works bonds,	Gaffney, S. C.	Dec. 8
Jan. 3.	Steel bridge,	Brookhaven, Miss.	Nov. 24
Jan. 3.	Water-works,	Gaffney, S. C.	Dec. 1
Jan. 3.	Bath plans,	Albany, N. Y.	Dec. 8
Jan. 4.	Library building,	Owatouna, Minn.	Dec. 15
Jan. 5.	Water-works,	Darlington, Okla.	Dec. 15
Jan. 5.	Macadam roads (17½ miles),	Decatur, Ind.	Dec. 1
Jan. 6.	Water-gas plant,	Johannesburg, So. Africa.	Oct. 27
Jan. 6.	Extension, electric plant,	Johannesburg, S. Af.	Oct. 27
Jan. 7.	Gravel road,	Valparaiso, Ind.	Dec. 8
Jan. 9.	School building,	Wilmington, Del.	Dec. 8
Jan. 9.	Water supply,	Bucharest, Roumania.	Dec. 15
Jan. 9.	Excavating, paving, etc., Advertised, Eng. News, Dec. 15 to Jan. 5.	Houston, Tex.	Dec. 15
Jan. 10.	Portland cemt (12,000 bbls.), Advertised, Eng. News, Dec. 15 to Jan. 12.	Duluth, Minn.	Dec. 15
Jan. 10.	Pumping engine for dredge, Advertised, Eng. News, Dec. 15 to Jan. 12.	Charleston, S. C.	Dec. 15
Jan. 10.	Capitol building,	Phoenix, Ariz.	Dec. 1
Jan. 10.	Sewer bonds ($50,000),	Grass Valley, Cal.	Dec. 1
Jan. 12.	Cement,	St. Paul, Minn.	Dec. 15
	Advertised, Eng. News, Dec. 15 to Jan. 5.		
Jan. 14.	Park work and plans,	Philadelphia, Pa.	Nov. 17
Jan. 15.	Sewers and drainage,	Callao, Peru.	Dec. 1
Jan. 15.	Street cleaning,	Indianapolis, Ind.	Dec. 15
Jan. 16.	Sale of telephone franchise, Advertised, Eng. News, Dec. 8 to Jan. 12.	Duluth, Minn.	Dec. 8
Jan. 18.	Sewers,	Aiken, S. C.	Dec. 15
	Advertised, Eng. News, Dec. 15 and 22.		
Jan. 24.	Footway tunnel,	London, England.	Nov. 10
Feb. 1.	School building,	Peoria, Ill.	Dec. 1
Feb. 2.	Electric lighting,	New Orleans, La.	Nov. 3
Feb. 7.	Sale of canal,	Annapolis, Md.	Dec. 1
Feb. 10.	Jail building,	Keyser, W. Va.	Sept. 29
Mar. 15.	Electric railway (28 miles), Advertised, Eng. News, Nov. 17 to Dec. 8.	Shanghai, China.	Nov. 24
Mar. 15.	Purchase of water-works,	Belem, Brazil	Dec. 1
Mar. 31.	Telephone concession, Advertised, Eng. News, Nov. 17 to Dec. 8.	Shanghai, China.	Nov. 24
No date.	Court house plans,	Wilkesbarre, Pa.	Dec. 15

RAILWAYS.

ARGENTINE.—Press reports state that Herr Schiffner has returned to Berlin, Germany, from Buenos Ayres, with concessions approximately comprehending 2,000 miles of proposed railway.

ARIZONA.—Work has begun on the construction of a railway from Kingman to White Hill, Mojave county, Ariz., a distance of about 54 miles, according to reports. The line will pass through one of the richest mining sections of Arizona. Work will begin at McConnico Junction, four miles west of Kingman, and an entrance will be gained into Kingman over the tracks of the Atchison, Topeka & Santa Fe Ry.; the heaviest grade will not exceed 1.85%. Theodore B. Comstock, Ch. Engr., Los Angeles, Cal.

ATCHISON, TOPEKA & SANTA FE.—At the annual meeting of this company at Topeka, Kan., Dec. 8, the directors formally ratified the purchase of the San Francisco & San Joaquin Valley Ry., by which an entrance will be made into San Francisco, and also of the Kansas City, Topeka & Western Ry., the Leavenworth Northern & Southern Ry., the Southern Kansas Ry., the New Mexico & Southern Pacific Ry., the New Mexican Ry., the Rio Grande, Mexico & Pacific Ry., the Silver City, Deming & Pacific Ry., the Wichita & Western Ry., and the St. Joseph, St. Louis & Santa Fe Ry.

BLACK DIAMOND.—Col. Albert E. Boone, Pres., Zanesville, O., informs us that the Ghent-Vevay Bridge & Terminal Ry. Co. was incorporated in Kentucky, Dec. 6, and that it proposes to build across the Ohio River for the northern outlet of this projected system. Location has been made for this bridge and for that to be built by the Dover-Ripley Bridge & Terminal Ry. Co., on main line at Dover, Ky. We are also informed that contract for work between Cynthiana and Vevay will not be awarded until about May, but that the first steps towards receiving bids will be taken in January or February.

BRIDGEPORT & HELENA.—Reports state that this company, which was incorporated in Oregon last June to build a line from Bridgeport, Ore., to Helena, Mont., has completed surveys from Helena to the Seven Devils mining district. W. Thos. Hart, Pres., Weiser, Idaho.

BRITISH COLUMBIA.—Reports state that applications will be made to the legislature of British Columbia for power to construct the following lines: From Fort Simpson to Glenora or Telegraph Creek, on the Stikine River, B. C.; from the main line of the British Columbia Yukon Ry. to Tagish Lake, and thence to Atlin City; also for a railway from Golden, on the main line of the Canadian Pacific, to Cranbrook, on the Crow's Nest Pass branch, a distance of about 150 miles.

CALIFORNIA.—Plans are about consummated for the construction of a new narrow-gage railway from Truckee, Cal., to Lake Tahoe, about 15 miles south. N. K. Masten, Pres. of Maricopa & Phoenix and Salt River Valley R. R. Co., San Francisco, Cal., is said to be interested.

CHOCTAW & MEMPHIS.—Johnson Bros. & Faught, St. Elmo, Ill., and J. H. McCarthy & Reichardt, Little Rock, Ark., general contractors, have sub-let work to the following contractors for the construction of this new line from Little Rock, Ark., to Howe, Ind. Ter., 164 miles: M. A. Wogans, St. Joseph, Mo.; Mike Tansy, St. Louis, Mo.; W. M. Powell, Oklahoma City, Okla.; Jacob Collins, Kansas City, Mo.; A. G. Brown, St. Elmo, Ill.; R. Morris, Beloit, Kan., and Welch Bros., St. Elmo, Ill. J. F. Cullens, of St. Louis, will do the masonry work. Grading is now in progress from Little Rock west to Danville, 80 miles; the maximum grade is one per cent, compensated, and the maximum curves, seven degrees. F. A. Molitor, Ch. Engr., Little Rock, Ark.

CLEVELAND, LORAIN & WHEELING.—Press reports state that this railway has been purchased by the Federal Steel Co., and that several extensions will probably be built.

DAYTON & FAUNSDALE.—G. L. Siddons, Pres., Siddonsville, Ala., informs us that ten miles of this proposed line has been graded between Dayton and Faunsdale, and 40 miles located and rights of way secured; capital has been secured only for the first ten miles. N. McKay, of New York, is to build and equip this section before March 1, and other contracts will be let when bonds are sold. The projected route is 110 miles in length from Linden, via Dayton and Faunsdale, and thence to Greensboro and Tuscaloosa, or to Marion, Centerville and Blocton, Ala. J. D. Jones, Ch. Engr., Shiloh, Ala.

DETROIT & MACKINAC.—The railway commissioners have approved of the map for the extension of this railway through the counties of Presque Isle, Cheboygan and Iosco.

EGYPT.—Reports state that plans are being formulated for the extension of the Soudan Ry. to Khartoum, 180 miles, and to other points, and that orders for bridges are now being placed with British firms.

FARMVILLE & POWHATAN.—This company contemplates the extension of its lines from Chester to Manchester, Va., and has had J. S. Taylor, J. A. Brown and others appointed as commissioners to secure the right of way. C. P. E. Burgwyn, Un. Engr., Richmond, Va.

GRAND RAPIDS, BELDING & SAGINAW.—Andrew Fyfe, Secy., Grand Rapids, Mich., informs us that the right of way has been secured and that surveys are being perfected for this proposed line from Lowell to Belding, via Alton and Smyrna, Mich., about 17 miles. It will serve as an extension of the Lowell & Hastings R. R. W. A. Smith & Co., Grand Rapids, Mich., is said to hold the contract. Thomas Hefferan, Pres., Grand Rapids; C. A. Gordon, Ch. Engr., Hermitage Bldg., Grand Rapids.

JAMESTOWN TERMINAL.—This company, which was incorporated Nov. 9, expects to build a short line in Jamestown, N. Y., from the terminus of the Jamestown & Lake Erie Ry., for freight purposes, with possible extensions later on to Falconer. The incorporators are: Samuel A. Briggs, William J. Maddox, John W. Doubleday, T. H. Smith, O. E. Jones, and others.

KANSAS & SOUTHERN.—This company was organized in Kansas, Dec. 3, with a capital stock of $100,000, to build nine miles of railway in Pottawatomie county. The directors are: Irving H. Wheatcroft, St. Louis, Mo.; C. B. Holmes, New York; A. J. Clark, New Orleans, La.; George C. Moore, Montreal, Que.; J. L. Rodgers, J. K. Codding and T. R. Cave, Westmoreland.

NEW YORK & PENNSYLVANIA.—Theodore Cobb, Contractor, Spring Mills, N. Y., informs us that he has about completed the construction of the extension to this line through Oswayo, Hebron and Clara townships, Potter county, Pa., six miles. William Cobb, Pres., Spring Mills; H. J. Rumsey, Ch. Engr., Oswayo, Pa.

NORTHERN PACIFIC.—Wren & Greenough, Spokane, Wash., are said to have been awarded the contract for the construction of a spur up Lapwai Creek, from Spaulding, Idaho. Right of way through the Caldwell grant has been secured.——Three and a half miles of the branch line being built from near Carbonado to the new Fairfax mines, in Pierce county, Wash., are finished, and it is expected to have the remainder of the line ready for use March 4. The extension will be about seven miles long and will be laid with 56-lb. rails. Three or four hundred men are working on the construction. E. H. McHenry, Ch. Engr., St. Paul, Minn.

OHIO.—The Eastern Ohio & West Virginia Mining has taken an option on 200,000 acres of land in the vicinity of the Ohio Valley, according to reports, on which extensive coal operations will soon be begun. The opening up of the district will require many miles of railway and sidings. O. E. Pearis, Ch. Engr., Canton, O.——Reports state that the Federal Steel Co. is considering the advisability of building a railway from its Lorain plant to Cleveland, O., about 25 miles.

PORTO RICO.—We are informed that J. G. White & Co., Engineers and Contractors, 29 Broadway, New York, have bought the eight existing miles of narrow-gage steam tram railway, now in operation in and near San Juan, Porto Rico. No immediate changes, either in the gage or the motive power, are projected.

RIO GRANDE, SIERRA NEVADA & PACIFIC.—J. Fewson Smith, Ch. Engr., P. O. Box 431 Salt Lake City, Utah,

informs us that the current reports regarding the extension of this railway from Casa Grande, Mexico, to the Yaqui Gold country, 80 miles, are entirely premature, as no decision has yet been reached by the company.

SCRANTON, HONESDALE & EASTERN.—Press reports state that this company will soon be incorporated in Pennsylvania and New York, with a capital stock of $9,000,000, to construct a railway from Carbondale to the Hudson River, along the Delaware & Hudson Canal, via Honesdale, Pa., and Port Jervis and Rondout, N. Y., 138 miles. It is designed to provide an outlet from the Lackawanna coal fields to tidewater. It is also stated that the London Railway Construction Co., Ltd., has awarded to a Chicago firm the contract for constructing a tunnel through the Moosic Mountains, 8,642 ft. in length, 14 ft. high, and 14 ft. wide, to be completed by Jan. 1, 1900, at a cost of $421,730, or $65 a lin. ft.

SHAWNEE, GUTHRIE, & NORTHWESTERN.—This company was incorporated in Oklahoma, Nov. 29, with a capital stock of $50,000, to construct a railway from Shawnee to Guthrie and west, via Enid or Kingfisher, Okla. The officers are: Pres., Henry Hudson; Vice-Pres., H. L. Miller; Secy., A. H. Humphrey; Treas., J. W. McNeal; directors, Henry Hudson, of Chicago; H. L. Miller, Guthrie, Okla.; W. S. Search, Shawnee, Okla., and others.

SUMMITVILLE, BLUE MOUNTAIN, WALLA WALLA.—Reports from Walla Walla, Wash., state that surveys are being made for this proposed line between Walla Walla and Union, Ore., a distance of about 80 miles. P. J. Taylor, Pres.; L. B. Rhinehart, Supt. of Construction.

TENNESSEE CENTRAL.—Naugle, Holcomb & Co., 355 Dearborn St., Chicago, Ill., are reported to have been awarded the general contract for building this entire line, work to be done by the Cumberland Const'n Co.; N. C. Chapman, Pres., St. Louis, Mo. The contract includes grading, tracklaying, bridges and materials, except rails, and fastenings and equipment. The 60-mile section of the road between Monterey and Harriman, Tenn., will be completed first. Grading was completed on 45 miles several years ago under Jere. Baxter, Pres., Nashville, Tenn. G. T. Bigelow, Ch. Engr., Rockwood, Tenn.

STREET AND ELECTRIC RAILWAYS.

BRIDGEWATER, MASS.—The Brockton, Bridgewater & Taunton St. Ry. Co. has filed a petition with the selectmen of Bridgewater, asking permission to lay a branch track from the main line to the power station. G. H. Campbell, Pres., Brockton, Mass.

LAKEVILLE, MASS.—A public hearing will be given in this town, Dec. 17, on the application of the Taunton & Middleboro St. Ry. Co. for a location in Lakeville. Nathaniel G. Staples, First Selectman.

EAST GREENWICH, R. I.—The Providence & East Greenwich Electric Traction Association has been organized in Providence, R. I., to promote the extension of electric railway service between Providence and this village; the extension of the Union R. R. Co.'s tracks is especially desired. Louis K. Potter, Pres., Cowsett, R. I.; L. D. Pierce, Secy., Norwood, R. I.

CROMWELL, CONN.—It is reported that F. W. Siebert, Edward W. Shedd and C. Siebert will apply to the incoming legislature for a charter to build an electric railway in Cromwell.

MERIDEN, CONN.—The Meriden, Southington & Compounce Tramway Co. contemplates increasing its capital stock to $500,000, and the extension of its tracks from Millidale to Mt. Carmel, to Waterbury, to Meriden and to Berlin, by an independent route, and to Plainville from its present Southington terminus, from Dunham's on Queen St. to Compounce Lake; and to build a cable line to West Peak. Francis Atwater, Pres., Meriden.

MOUNT VERNON, N. Y.—The council, Dec. 6, granted a franchise to the New York, Westchester & Connecticut Traction Co. to build extensions connecting its lines through Mount Vernon with Pelham, White Plains and Harlem. Frederick C. Cocheu, 189 Montague St., Brooklyn, N. Y., is said to be interested.

ROME, N. Y.—A hearing will be given in this city, Jan. 16, on the application of the Rome City St. Ry. Co. and the Utica Suburban St. Ry. Co. for a franchise to build through this city. John W. Boyle, Pres., of Utica Co., Utica; J. S. Wardwell, Pres. of Rome Co., Rome.

SARATOGA, N. Y.—The Saratoga Traction Co., which runs from Saratoga to Saratoga Lake and the Geysers, will, it is stated, continue the trolley system from the Geysers to Ballston Spa, a distance of five miles. R. E. Dunston, Mgr.

BOUND BROOK, N. J.—The council has passed an ordinance granting a franchise to the Philadelphia Traction Co. to build an extension on East Main St. to connect the New Brunswick line with that running to Somerville and to Plainfield.

CLIFFSIDE, N. J.—Reports state that the Bergen County Traction Co., office address, foot West 130th St., New York, has decided to build a spur line from Fort Lee Ferry at Undercliff to Hudson county, via Cliffside, connecting with the North Hudson County Ry.

LODI, N. J.—Colin R. Wise, Ch. Engr., Passaic, N. J., informs us that surveys have all been made and franchises obtained for the proposed 2½ miles of electric railway to be built for the Saddle River Traction Co. from Passaic to Lodi. Rails, ties and poles are all purchased; power will be obtained from the Passaic Lighting Co. as stated in our issue of Dec. 1, the contract for the work has been let to Sanford & Stillman, 26 Exchange Place, Jersey City, N. J.

HARRISBURG, PA.—The extension of the lines of the Harrisburg Traction Co. from Progress to Linglestown and Cahoe's Springs is under contemplation.

PERKASIE, PA.—The council has granted a franchise to the Quakertown Traction Co. to build in this borough. C. Taylor Leland, Pres., Quakertown, Pa.——Messrs. Trelly and Pascoe, of the Inland Traction Co., also have franchises to build from Perkasie to Lansdowne.

PHILADELPHIA, PA.—The council has been petitioned to permit the Union Traction Co. to extend its tracks on 4th St., from Snyder Ave. to Ritner St., and to erect string wires on Island Road and Eastwick Ave.; also to permit the Delaware & Schuykill Electric Ry. Co. to lay tracks in the 28th and 32d Wards.

POTTSTOWN, PA.—The Montgomery & Chester Electric Ry. Co. was incorporated, Dec. 9, with a capital stock of $300,000, to construct and operate an electric street railway between Pottstown, Montgomery county, and Phoenixville, Chester county, Pa., a distance of 17 miles. The incorporators are: Daniel S. Mann, Pres., 49 North 13th St.; Wm. H. Grebe and Claude S. Jarvis, all of Philadelphia, Pa.; Geo. F. P. Wanger, Pottstown; J. G. MacPherson, Washington, D. C.

STONEYCREEK MILLS, PA.—Reports from Oley, Pa., state that Davis Bros., engineers for the Reading Traction Co., Reading, will soon begin surveys for an electric railway to connect Stonycreek Mills and Friendensburg.

BALTIMORE, MD.—Press reports state that the Baltimore & Northern Electric Ry. Co., H. A. Parr, Pres., has secured control of the Baltimore City Passenger Ry., including 26 miles of line.

CUMBERLAND, MD.—Isaac A. Walker & Son, engineers and contractors, 1218 Stephen Girard Bldg., Philadelphia, Pa., inform us that they have bought the franchises and charters of the Cumberland & Frostburg, the Frostburg & Lonaconing and the Lonaconing & Westernport R. R. Co.s, formerly controlled by J. W. Burchinal, Moundsville, W. Va., and others. The route is from Elkhart, Md., through Frostburg, Midland, Lonaconing, Westernport and ten other towns, 27 miles. Surveys are now being made, and construction is expected to be started by March 1. T. D. Howell, Ch. Engr., Philadelphia.

WASHINGTON, D. C.—Theodore J. King, Ch. Engr., 1509 Florida Ave., N. E., informs us that the grading for a new section of the Columbia Ry. along Benning Road, will be done by John Jacoby. The new power house and motor equipment will be furnished by the General Electric Co.; the engine by the E. P. Allis Co., and the boiler by Campbell & Zell Co. Nathaniel Wilson, Pres.——The following street railway bills have been introduced in Congress: To extend the Metropolitan R. R. by underground electric up Brightwood Ave. to Rock Creek Church Road; also up 11th St., extended through Columbia Heights and westward through Mount Pleasant; to extend the same line from its present terminus at Columbia Road and 18th St., through Lamier Heights and Mount Pleasant, and to extend the line from Lincoln Square down 11th St. east to connect with the Anacostia line.

PETERSBURG, VA.—The Virgina Traction Co. has been organized in this city, according to reports, with the following officers: T. O. Troy, Pres., Charlottesville, Va.; Augustus Wright, Vice-Pres., Petersburg; R. J. Spartley, Treas., Petersburg; and others.

BIRMINGHAM, ALA.—The Bloomfield & Orchard Lake Ry. Co. has been incorporated with a capital stock of $25,000, to construct a street railway to Orchard Lake, by Almeron Whitehead, of Birmingham, and others. The franchise was granted Nov. 26, as stated in our last issue.

GADSDEN, ALA.—The address of the Gadsden & Attala Union Ry. Co. which has made arrangements to operate its line by electricity is as above, and not Gadsden, Tenn., as stated in our last issue.

TOLEDO, O.—The Toledo, Maumee & Perrysburg Electric R. R. Co. is said to contemplate the construction of a $40,000 power house at Miami. Extensions in the spring to Waterville and Woodville are also projected. J. K. Tillotson, Pres. and Mgr.

WARREN, O.—It is reported that the Cleveland & Chagrin Falls Electric R. R. Co. has issued $300,000 in bonds, and that an extension to Warren will be built at once. V. A. Taylor, Pres., American Trust Bldg.

RICHMOND, IND.—Wm. A. Pickens, Indianapolis, Ind., through A. C. Lindemuth, of this city, has applied to the council for a franchise to build a railway through this city, using either steam, electric or other motive power.

HOWARD, ILL.—It is reported that H. N. Bates, Gen. Mgr. of the Continental Construction Co., Boston, Mass., has offered to build and equip the projected electric railway from Howard to the head of Geneva Lake.

OREGON, ILL.—Fred G. Jones, Vice-Pres., Rock River Electric R. R. Co., informs us that contracts will be let before Dec. 20 for the construction of this proposed electric railway from Oregon to Rockford, via Byron, Ill., 30 miles. Surveys have been made and most of the right of way secured. E. M. Hopkins, Chicago, Ill.; J. B. Bertolet, Ch. Engr., Leaf River, Ill.

MILWAUKEE, WIS.—George H. Sager, of Chicago, has applied to the council for a franchise to build a competitive street railway system in this city.

KANSAS CITY, MO.—Bids are asked by the North East Electric Ry. Co., according to reports, for the rebuilding of its road, including a new steel bridge at Agnes Ave.; estimated cost, about $200,000; W. M. Reid, Pres.

FORT SMITH, ARK.—Reports state that the Midland Land Co., recently organized in this city, contemplates the building of an electric line to Van Buren.

PINE BLUFF, ARK.—The Pine Bluff Electric Light & St. Ry. Co. was incorporated in Arkansas, Dec. 6, with a capital stock of $300,000, with $175,000 subscribed to build an electric street railway in this city. Jeff. Hicks, Pres.; Thos. L. Chadbourne, Jr., Vice-Pres.; H. H. Hunn, Secy. and Treas.; all of Pine Bluff.

WARDNER, IDAHO.—The Wardner & Kellogg Electric Ry. Co. has been incorporated with a capital stock of $500,000, to construct a line between Kellogg and Wardner. The incorporators are: Bartlett Pressey, Kellogg, Idaho; Wm. W. Woods, Wallace, Idaho, and others.

PARIS, FRANCE.—Press reports state that the General Electric Co., Schenectady, N. Y., has received a large order for the equipment of a terminal section of the Chemin de Fer d'Orleans, a suburban railway to Paris.

ELECTRIC LIGHT AND POWER.

CAMPTON VILLAGE, N. H.—It is stated that this place has decided to put in electric lights.

BOSTON, MASS.—Bids are asked until Dec. 23 for extending the wiring system and power plant at the Boston navy yard. M. T. Endicott, Ch. Bureau Yards & Docks, Washington, D. C.

FAIRFIELD, CONN.—F. W. Siebert, Edward W. Shedd and C. Siebert, it is reported, will ask the legislature, soon to be in session, for a charter to furnish light and water to Southport and Fairfield. Chas. Sherwood, Pres. Bridgeport Hydraulic Co., Bridgeport, Conn., may be able to give information.

CAMILLUS, N. Y.—The Globe Milling Co., it is stated, proposes to put in electric lights at its mill. The plant may be used for street and commercial lighting.

LOCKPORT, N. Y.—Local papers state that the manufacturers at this place propose to build a dam for furnishing sufficient water power during the winter. Chas. T. Raymond, Mgr., and Jos. Ellers, Supt. Lockport Pulp Mill, may be addressed.

NORTH TONAWANDA, N. Y.—The aldermen have granted a franchise to the Niagara Falls Power Co. The city will, after three years, receive from the power company 2½% of the gross receipts.

ONONDAGA VALLEY, N. Y.—E. J. Clark writes us that no plant will be put in at present.

GIBBSTOWN, N. J.—The Repauno Chemical Co., Repauno, N. J., and 97 Cedar St., New York, has let the contract to the Tucker Electrical Construction Co., 14 Whitehall St., New York, for the entire lighting and power plant for the Repauno works. General Electric machinery will be used. The plant will have about 100 HP.

PATERSON, N. J.—Bids are asked until Dec. 27 for a system of iron armored conduits or cold-drawn steel tubing with interior non-corrosive lining, or tubing equal thereto, wiring and distribution tablets, in the U. S. post office. O. L. Spaulding, Acting Secy. Treasury Dept., Washington, D. C.

BELLEVUE, PA.—The Pennsylvania Light, Heat & Power Co. has asked for a franchise to operate a plant. The plant will be built on the Ohio River front.

ELLWOOD, PA.—It is stated that an election will be held Dec. 20 to vote on the question of issuing $8,000 in bonds for a plant.

PHILADELPHIA, PA.—Bids will soon be asked by the park commission for furnishing electric lights in the parks. The contractor will be required to lay 2,000 ft. of conduit in each park.

HAGERSTOWN, MD.—E. M. Schindel, Mayor, has signed the ordinance authorizing the establishment of a municipal plant, at a cost of $60,000. The city at present is lighted by the Hagerstown Ry. Co., the contract for which will expire in two years.——The Western Maryland R. R. Co., it is stated, has decided to build a plant for its yard in this city. J. M. Hood, Pres. and Gen. Mgr., Baltimore.

WASHINGTON, D. C.—Bids are asked until Dec. 27 for manufacturing and placing in the post office building combined gas and electric light fixtures. O. L. Spaulding, Acting Secy. Treasury Dept.

SMITHFIELD, VA.—J. W. Holloway writes us that the contracts for the proposed plant have been made.

ASHEVILLE, N. C.—M. W. Robertson, Cy. Clk., writes us that bids for electric lighting were not coming in to the satisfaction of the board; it was therefore decided on Dec. 2 to renew the contract with the Asheville Electric Co. for one year, at $85 a light. In the meantime, the city is open for a long term contract or for the purchase of a plant.

ORANGEBURG, S. C.—It is stated that bids are wanted until about Dec. 19 for furnishing the materials and for building a plant, water-works and a sewerage system; estimated cost, $55,000. Frederick Minshall, Engr., 150 Nassau St., New York, and Pocomoke City, Md.

YORKVILLE, S. C.—T. B. McClain, it is stated, proposes to build a plant for his cotton mill. The plant will probably have capacity to furnish light for the town.

NEW ORLEANS, LA.—The Western Electric Co., 227 South Clinton St., Chicago, has been awarded the contract for building the plant at Gravier and Clark Sts. for the Merchants' Electric Light & Power Co., to cost about $300,000. The plant will be operated under the franchise granted to Cohn & Ber. M. Ber, Pres.; C. A. Gaines, Ch. Engr.

NEW HAVEN, KY.—The "Echo" is urging the construction of a power plant at this place. Some years ago the late Col. John C. Broadhead made a survey for a water power plant to furnish 900 HP.

CLEVELAND, O.—Bids are asked until Dec. 21 for furnishing 878 arc lights for one year. Geo. R. Warden, Dir. Pub. Wks.

INDIANAPOLIS, IND.—Local papers state that the Chenoweth Light & Power Co. has filed with the board of public works an application for a franchise. A plan of overhead wires outside of the mile square was also filed. The company will cater only for that part of the city outlying the territory bounded by North, West, South and East Sts. Daniel A. Chenoweth, Pres., writes us that the plant will be operated by gas. Estimated cost, $25,000.

ALLEGAN, MICH.—The council has refused to award a 10-year contract to the Kalamazoo Valley Electric Co.

CHARLOTTE, MICH.—Press reports state that another election will soon be held to vote on the question of building a municipal plant.

FLAT ROCK, MICH.—Geo. Williams, Editor, writes us that a local merchant offered to put in a plant if he could get 300 lights subscribed for at 43 cts. a light a month. He could get but 150 lights engaged, and has decided not to put in the plant.

SAULT STE. MARIE, MICH.—Local papers state that the Chandler-Dunbar Water Power Co. will build a power plant at St. Mary's Falls, to develop about 30,000 HP. Plans are said to have been prepared and arrangements are soon to be made for the machinery. Estimated cost, $1,500,000. Wm. Chandler, Pres., Sault Ste. Marie.

ROCKFORD, ILL.—The Rockford Ry., Light & Power Co. has certified to an increase in the capital stock from $250,000 to $350,000.

MARSHALLTOWN, IA.—A committee is reported to have been appointed to consider the question of putting in a city plant. Population, 10,000. F. G. Pierce, Mayor.

OLIVIA, MINN.—F. McCormick, of Duluth, Minn., is reported to have made arrangements for a plant for this place.

HASTINGS, NEB.—It is stated that Denver parties have offered to purchase the plant of the Hastings Electric Co. If it is purchased a number of improvements to it will be made.

TOPEKA, KAN.—Bids are asked by the city clerk for a new engine for the electric plant, to cost $7,000.

MAYSVILLE, MO.—The question of having a municipal plant or of letting the contract for electric lighting is being considered.

ST. LOUIS, MO.—We are informed as follows in regard to the proposed municipal plant for this city: No plans have been secured, no money appropriated and no contracts awarded for the plant. The committee of the board of public improvements on electric lighting, consisting of M. L. Holman, Water Comr.; Robt. E. McMath, Pres., and B. H. Colby, Sewer Comr., has, within the past two years, drawn and sent to the municipal assembly 14 electric light ordinances, covering the field completely and providing for electric lighting and gas lighting, but every ordinance has been killed or filed, with the exception of the first one, which passed, and under which the board advertised for bids but received none. The committee has now drawn another ordinance for electric lighting, by contract, for a term of 10 years, and will present the same to the board of public improvements for approval about Dec. 13, and after approval it will go to the assembly for action the same day. The assembly can reject or pass ordinances sent from the board, but does not have the power to amend. The project for municipal ownership has, for the present, been abandoned, owing to financial reasons.

PALOUSE, WASH.—Codd & Mackenzie, owners of the plant at Colfax, Wash., have offered to erect a plant in this place, at a cost of about $10,000.

FULLERTON, CAL.—It is stated that sites for a plant are being considered.

WOODSTOCK, ONT.—Press reports state that the question of the city purchasing the plant of the Woodstock Electric Light, Power & St. R. R. Co. is being considered.

NEW COMPANIES.—Delaware County Electric Light & Power Co., Clifton Heights, Pa.; $5,000; Chas. M. Wagner, Lansdowne, Pa.; Richard M. Austin, Philadelphia; Jas. S. Austin, Yeador, Pa.

New York Gas and Electric Light, Heat & Power Co., Cable Bldg., New York; Wm. C. Whitney, Roswell P. Flower, New York; Thos. Dolan, Philadelphia.

BRIDGES.

BOSTON, MASS.—A hearing was given Dec. 8 by the street commissioners on the question of extending Atlantic Ave. to Dorchester Ave., South Boston, by a bridge over the tracks of the Terminal Co. and over Fort Point Channel. Nothing definite has been decided. It is proposed to give at least two other hearings. J. H. Benton, Jr., Counsel, Terminal Co.

MOUNT VERNON, N. Y.—The plans and specifications prepared by the New York, New Haven & Hartford R. R. Co. for a new bridge at Third Ave., have been approved by the board of aldermen. The contract is soon to be awarded.

RENSSELAER, N. Y.—Bids are asked until Dec. 20 for extending Washington St. and constructing an iron bridge over Mill Creek. The bids received Dec. 6 were rejected. C. A. Ryan, Cy. Clk.

WATERTOWN, N. Y.—The board of public works is considering the question of replacing the old bridge at Court St. The city engineer will correspond with several bridge companies, and an expert will probably be secured to examine the old structure.

PHILADELPHIA, PA.—A bill has been introduced by Councilman Large, appropriating $75,000 for the construction of a bridge over the Pennsylvania R. R. at 42d St.

WASHINGTON, D. C.—The committee on interstate and foreign commerce is considering the question of constructing a memorial bridge across the Potomac River to connect West Washington with the government reservation at Arlington, Va.; estimated cost, about $1,250,000.

SELMA, ALA.—Bids are asked by the county clerk until Dec. 21 for the purchase of $65,000 of 6% bridge bonds.

SCRANTON, MISS.—The county supervisors awarded a contract Dec. 6 to the Geo. E. King Bridge Co., Des Moines, Ia., for a steel bridge across Cedar Creek.

CANTON, O.—The construction of a viaduct from near Newton St. to Hazlett Ave. is being talked of. The question will probably be submitted to the council in a few weeks. Thos. J. Bidwell, Township Trustee.

ZANESVILLE, O.—The contract for the erection of the iron approach to the Monroe St. bridge was awarded by the county commissioners Dec. 7, to the King Bridge Co., Cleveland, at $13,600.

DETROIT, MICH.—Reports state that the Detroit & Lima Northern Ry. bridge over the Huron River, near Flat Rock, has fallen. C. H. Roser, Ch. Engr., Detroit.

SAGINAW, MICH.—The street railway company has decided to erect an iron bridge across the river at Bristol St. to replace the wooden structure, according to reports.

ARCADIA, WIS.—Reports state that at a special election this place voted to construct a bridge across the Trempealeau River.

MILWAUKEE, WIS.—G. H. Benzenberg, Cy.Engr., submitted plans Dec. 5 to the council for the construction of a viaduct over Kinnickinnie Ave., between Maple and Beacher Sts. The structure to be a double-deck rolling bascule 1,720 ft. long and about 60 ft. wide, estimated cost, $184,000.

DULUTH, MINN.—R. Murchison, Clk. Bd. Pub. Wks., informs us that the steel bridge across Fischer's Creek, which was destroyed Nov. 29, is being replaced by a temporary wooden structure under the direction of Thos. F. McGilvray, Cy. Engr.

MINNEAPOLIS, MINN.—The following bids were received Dec. 9 for the steel and iron work for widening the stone arch bridge over the East Channel of the Mississippi River. Material to be furnished f. o. b. cars:

Toledo Bridge Co., Toledo, O.	$10,990
Chicago Bridge & Iron Co., Chicago, Ill.	10,966
Hoff Bros., Minneapolis, Minn.	11,787
Penn Bridge Co., Beaver Falls, Pa.	11,240
American Bridge Works, Chicago, Ill.	14,540
Wrought Iron Bridge Co., Canton, O.	12,093
King Bridge Co., Cleveland, O.	12,200
Edgemoor Bridge Works, Wilmington, Del.	11,840
Milwaukee Bridge & Iron Works, Milwaukee, Wis.	12,799
Wisconsin Bridge & Iron Co., N. Milwaukee, Wis.	12,259
Youngstown Bridge Co., Youngstown, O.	11,969
Pittsburg Bridge Co., Pittsburg, Pa.	11,986
Gillette-Herzog Mfg. Co., Minneapolis, Minn.	11,649

ST. PAUL, MINN.—It is reported that about 150 ft. of the St. Paul & Duluth R. R. bridge at 6th St., fell Dec. 7. C. J. A. Morris, Ch. Engr., St. Paul.

BLAIR, NEB.—Bids are asked until Dec. 20 for the construction of steel bridges for the year 1899, according to reports. Watt Gauldrie, County Clk.

GRAND ISLAND, NEB.—Arnold C. Koening, County Surveyor, writes us under date of Dec. 5 in regard to a proposed bridge over the Platte River, five miles south of this place, to be constructed by Hall county. The Platte River is divided into four channels at this point aggregating 2,100 ft. across. A plain wooden bridge, perhaps trussed stringers 40-ft. span, resting on piles, is contemplated, but nothing definite will be done for 30 or 60 days. The new county board upon organizing in January, will probably order the surveyor to prepare plans and specifications and then advertise for bids.

NELSON, NEB.—Bids are asked until Jan. 3 for repairing two 84-ft. combination bridges, according to reports. N. A. Clark, County Clk.

PLATTSMOUTH, NEB.—Bids are asked until Dec. 31 for constructing wooden and iron bridges for the year 1899, according to reports. James Robertson, County Clk.

LEAVENWORTH, KAN.—The county commissioners have awarded a contract to the Missouri Valley Bridge Co., at $1,150 for three iron bridges.

SMITHVILLE, TEX.—The county commissioners, Bastrop, Tex., awarded a contract Dec. 2 to the Indiana Bridge Co., Muncie, Ind., at $23,500, for the construction of a bridge over the Colorado River.

ASPEN, COLO.—Bids are asked until Jan. 2 for the construction of a bridge across the Roaring Fork River near Basalt. Geo. W. Nyce, County Surveyor; R. C. Parr, Clk.

TACOMA, WASH.—It is proposed to have the city engineer prepare plans of the location, etc., for a bridge over the Puyallup River on the extension of 11th St., and if the council passes a resolution, the question will be submitted to the war department for approval, according to reports. Senator John L. Wilson is interested.

OGDEN, UTAH.—Bids are asked until Dec. 28 for furnishing plans and constructing a steel truss bridge 140 ft. long and 18 ft. wide, across Weber River. Newton Farr, Clk. County Comrs.

KAMLOOPS, B. C.—M. P. Gordon, Mayor, writes us that the proposed bridge over Thompson River at the ferry, is government work and will cost about $40,000. Bids have not been asked. F. C. Gamble, Engr., Dept. Pub. Wks., Victoria, B. C.

BUILDINGS.

BROOKLYN, N. Y.—Bids are asked by the department of public buildings, 346 Broadway, New York, until Dec. 22, for certain repairs and alterations to the Municipal Building of the Borough of Brooklyn, city of New York.——Bids are asked until Dec. 23 for erecting a storehouse for ordnance materials at the Navy Yard, in Brooklyn. Address Mordecai T. Endicott, Ch. of Bureau of Yards and Docks, Washington, D. C.——Bids are asked by the police department, at 300 Mulberry St., New York, until Dec. 23, for completing alterations, general repairs and improvements to the station house building of the 46th Precinct, 6th Ave. and Bergen St., Borough of Brooklyn, city of New York; bond, $5,000; time, 60 days.

BUFFALO, N. Y.—Bids are asked until Dec. 21 for the erection of a 12-room brick addition to School No. 9, on Bailey Ave., near Doat St. Address R. G. Parsons, Secy. Bd. of Pub. Wks.

LONG ISLAND CITY (L. I.), N. Y.—Bids are asked by the police department, at 300 Mulberry St., New York, until Dec. 23, for completing alterations, general repairs and improvements to the heating system at the 74th Precinct station house, at 162 Grand Ave., Astoria, in the Borough of Queens, city of New York; bond, $5,000; time, 30 days.

LOWVILLE, N. Y.—The erection of a town hall, to cost about $20,000, is being projected by H. A. Phillips, Fred. C. Schraub and others of this place.

NEW YORK, N. Y.—Bids are asked by the board of education, at 585 Broadway, until Dec. 19, for improving the sanitary condition of Public School 37, Borough of Manhattan, and for improving the sanitary condition of Public School 18, Borough of Richmond.——Bids are asked by the department of public buildings, 346 Broadway, until Dec. 20, for furnishing all labor, materials, etc., for erecting complete a steam heating apparatus in the Zbrowski Mansion, Claremont Park, Borough of the Bronx.——Bids are asked by the department of public charities, foot of East 26th St., until Dec. 21, for altering the old Morgue into a stable and carriage house, altering the present stable for the drug department and clothing storage, and for new plumbing in doctors' bathroom in main hospital building, Bellevue Hospital grounds, 26th St. to 28th St. and 1st Ave.; two sureties, $7,000 each.——Bids are asked by the police department, 300 Mulberry St., until Dec. 23, for furnishing materials and completing alterations, general repairs and improvements to the station house and stable buildings of the 41st Precinct, at Bronx Park; bond, $5,000; time, 60 days.——Plans have been prepared, according to reports, for a 2-story brick and iron winter garden to be erected on Broadway, near Central Park, to cost about $175,000. Werner & Windolph, 92 Liberty St.——Robert Maynicke, 725 Broadway, is said to be preparing plans for a 12-story business building to be erected at 632 and 634 Broadway for Henry Corn, 170 5th Ave.——Plans have been filed by John Acker, 119 West 114th St., for four 5-story brick flat buildings on 113th St., near 8th Ave., to cost $12,000. Chas Stegmayer, Arch., 306 East 82d St.; by Maurice Polk, 103 West 114th St., for three 6-story brick and stone flat buildings at St. Nicholas Ave. and 153d St., to cost $325,000. Janes & Leo, Archs., 967 Boulevard; by Michael Tully, for a 6-story brick and stone flat building on 80th St., near West End Ave., to cost $95,000. Janes & Leo, Archs.; by Wm. H. Picken, 61 West 113th St., for a 7-story brick flat and store building on West End Ave., near 106th St., to cost $110,000. Henry Anderson, Arch., 1180 Broadway; by Peter Talbot, 826 St. Nicholas Ave., for a 7-story brick flat building on Riverside Drive, near 95th St., to cost $140,000. John Woolley, Arch., 111 5th Ave.; by J. & G. J. Fleischmann, 7 West 112th St., for eight 5-story brick flat buildings at Madison Ave. and 119th and 120th Sts., to cost $180,000. G. F. Pelham, Arch., 503 5th Ave.; by the General Theological Seminary, 9th Ave. and 20th St., for a 2-story brick gymnasium and a 5-story apartment house at 10th Ave. and 21st St., to cost $100,000. Chas. C. Haight, Arch., 111 Broadway.

UTICA, N. Y.—Crouse & Brandegee, Clothiers, expect to erect a 4-story addition, 40 × 100 ft., to its present building at Main and 1st Sts. Pius Kerner has masonry contract and Williams & Thomas, the carpentry contract. F. H. Gouge, Arch.

WHITEHALL, N. Y.—Bids are asked until Dec. 23 for erecting and finishing, warming and ventilating, plumbing and drainage, and the electric wiring for a state armory building at Whitehall, Washington county. I. G. Perry, State Arch.; Chas. W. Tillinghast, Adj.-Gen., both of Albany, N. Y.

TOMS RIVER, N. J.—Bids are asked by the U. S. Life Saving Service, Treasury Dept., Washington, D. C., until Dec. 21 for the construction of a life saving station on Berkeley Beach, near the present Toms River life saving station, N. J. The superintendent of construction, 24 State St., New York, can furnish plans, etc.

BRADDOCK, PA.—It is reported that J. L. Litvitz, of Braddock, and others, will erect a 5-story store building at Braddock Ave. and 7th St., to cost $50,000.

PHILADELPHIA, PA.—Bids are being received by Allen B. Rorke, according to reports, for erecting a 7-story office building at 1302 Filbert St. M. Bunting, Arch., 1215 Filbert St.——Harmonie Hall, 11th Ave. and Brandywine St., was destroyed by fire Dec. 9; reported loss, $50,000.——A permit has been granted for the erection of a 7-story apartment house on 37th St., near Chestnut St., for C. H. S. Littleton, to cost about $65,000. Harry Peale, Jr., Arch., Harrison Bldg.; Frank S. Riggs, Contractor.——Joseph Bird has been awarded the contract for making extensive alterations to the building at 715 and 717 Market St., for Lit Bros. Collins & Autenrieth, Archs.——Charles McCaul has been awarded the contract for erecting the new Elkins station on the North Penn branch of the Philadelphia & Reading Ry., to cost about $25,000. Cope & Stewardson, Archs., 314 Walnut St.

WILKESBARRE, PA.—We are informed that competitive plans will soon be asked for a new court house for Luzerne county, to cost not more than $500,000.

WASHINGTON, D. C.—Mrs. Scott Townsend is said to contemplate the erection of a costly residence at Massachusetts and Florida Aves.——The Capital Construction Co. intends to enlarge the Portner House, so as to cover the entire square. It will have a frontage of 320 ft., be 6 and 7 stories high, and of fireproof construction; reported cost, $150,000. C. A. Didden, Arch.——Secretary of War Alger, in his annual report, recommends the erection of a fireproof building for the records of the department.

WILMINGTON, N. C.—The following bids for constructing a torpedo store house at Fort Caswell, N. C., were received by Capt. W. E. Craighill, U. S. Engrs.: Philadelphia Construction Co., Philadelphia, $6,300; Cullam & Weeks, Southport, N. C., $5,130; A. J. Robbins, Southport, N. C., $4,740; Structural Iron Co., Baltimore, Md., $15,000.

ATLANTA, GA.—Reports state that Jack Prince will erect a building to seat 10,000 people and to cost $25,000.——Bids will soon be asked for the erection of an annex to the court house.

FERNANDINA, FLA.—Reports state that a new city building will soon be erected.

KNOXVILLE, TENN.—Reports state that a 14-story office building, to cost between $750,000 and $1,000,000, will be erected at this place. I. P. Thurman, of Allegheny, Pa., is interested. Chas. S. Bickel, Arch., Pittsburg.

MEMPHIS, TENN.—The following bids have been received by Custodian James Jeffreys for painting and other work on the Custom House: Cole Mfg. Co., $9,324; Ballon Co., $9,200; True-Tagg Co., $9,177; Eberhardt, $7,477.

ASHLAND, KY.—Bids are asked until Jan. 3 for all or any portion of the labor and material for the construction of an edifice for the Episcopal Church at this place. J. R. Geiske, Arch., Ceredo, W. Va.

LOUISVILLE, KY.—The county commissioners have appointed a committee to receive bids and plans for an addition to the court house, to cost about $40,000.——The Mutual Life Insurance Co., of Kentucky, contemplates the expenditure of about $100,000 in improving the Bull Block.

BOWLING GREEN, O.—The people of Wood county are considering the erection of a new jail.

CINCINNATI, O.—Bids are asked until Dec. 20 for erecting a station house in the 6th Police District. W. H. Harrison, Clk. of Bd. of Police Comrs.; Hannaford & Sons, Archs.

CLEVELAND, O.—Wm. C. Wood will erect an apartment house, 56 × 81 ft., on Clinton St., to cost about $25,000. Steffens, Searles & Hirsch, Archs.——The Euclid Ave. Congregational Church will erect a new Sunday-school building, to cost between $30,000 and $40,000.

YOUNGSTOWN, O.—Bids are asked until Dec. 16 for the purchase of $54,000 of bonds for the equipping of the Mahoning County Infirmary, plumbing, lighting, etc. C. F. Brenner, County Audr.

FRANKFORT, IND.—A fire here Dec. 5 destroyed the Commercial Block; reported loss estimated at $100,000.

LEBANON, IND.—The commissioners of Boone county are considering the question of erecting a new $150,000 court house.

DETROIT, MICH.—The board of works, it is stated, will recommend that the contract for the G. A. R. memorial building be let to Spitzley Bros., 83 Beacon St., at $39,000.

CHICAGO, ILL.—The board of education will soon receive bids for the 3-story and basement Darwin School building, 90 × 188 ft., to be erected at Edgewood Ave. and Catalpa Place, and to cost $90,000.——The contract for the masonry work of the new post office building has been let by the contractor, John Pierce, of New York, to the E. F. Gobel Co., of this city.——William Deering will erect a 4-story brick apartment house on Lill Ave., to cost $40,000.——Atchison & Blaisdell will erect a 3-story brick store and apartment building on West Congress St., to cost $35,000.——Mrs. Lucy Morton proposes to erect seven 3-story brick residences on Washington Ave., to cost $42,000.——Marshall, Field & Co. will erect an 8-story brick warehouse on West Polk St., to cost $100,000.

APPLETON, WIS.—The council will soon receive plans for the proposed city hall and library building, according to reports.

BALSAM LAKE, WIS.—Bids are asked until Jan. 3 for furnishing the labor and materials required in the erection of the court house, jail and residence. H. P. Burdick, Secy. County Comrs.

KENOSHA, WIS.—The county board has appropriated $5,400 for remodeling and repairing the county jail.

MILWAUKEE, WIS.—Bids are asked by the supervisors of Milwaukee county until Dec. 24 for the remodeling of the south wing of the court house, etc.; bond, $2,500. Aug. F. Zentner, County Clk.

OSHKOSH, WIS.—Bids are asked by the board of public works until Dec. 19 for furnishing and installing a heating plant in the Punhoqua school. Wm. Waters, Arch. Bids are also asked on plans by bidders, and bids including fan system will receive special attention. Bond, $1,000.

WAUPACA, WIS.—The board of trustees of the Wisconsin Veteran's Home at this place will ask for an appropriation of $30,000 for the purpose of enlarging the capacity of the home. It will also act upon the plans for the new hospital to take the place of the one recently burned.

WEST SUPERIOR, WIS.—The contracts, it is stated, for the new theatre building to cost $100,000 will soon be let. Geo. A. Garnsey, Arch., Chicago. Arthur Miller, of Boston, and others, are interested.

LEAVENWORTH, KAN.—Capt. John Seaton, Atchison, Kan., is said to be contemplating the erection of a new opera house in this city.

DULUTH, MINN.—Reports state that new bids will be asked by the Eastern Minnesota R. R. Co. for the construction of a freight warehouse.

MINNEAPOLIS, MINN.—Pike & Cook have the contract for erecting a 9-story office building, 156 × 120 ft., to cost $200,000, for Mr. Andrus. F. B. & L. L. Long, Archs.

OWATONNA, MINN.—Bids are asked until Jan. 4 by the secretary of the board of directors for a brick and stone library building. Smith & Gutterson, Archs., Des Moines, Ia. B. E. Darby, Secy.

LEAVENWORTH, KAN.—The Metropolitan St. Car Co. contemplates the erection of a new street car barn in which will be located the machine shops of the company. Capt. W. D. Bethel may be addressed.

FORT TOTTEN, N. DAK.—Owen & Hille, of Minneapolis, Minn., have been awarded the contract for erecting the school building, at $29,000, and for putting in a water system, at $4,790.

FORT WORTH, TEX.—L. S. Thorne, Gen. Mgr. of the Texas & Pacific R. R., according to reports, states that the company will erect a passenger station to cost about $150,000, in this city.

COLORADO SPRINGS, COLO.—Plans are being prepared by Building Inspector Roby for the proposed addition to the city hall.

COLFAX, WASH.—W. W. Waite, Mgr. Colfax Military Band, contemplates erecting a 2-story opera house building, 50 × 120 ft.

SPOKANE, WASH.—The Spokane Lodge of Elks has decided to incorporate with a capital of $100,000, for the purpose of erecting a 3-story brick building, 100 × 150 ft., at Riverside Ave. and Lincoln St.

OAKLAND, CAL.—Contracts will soon be let for the erection of the buildings for a naval school for which the appropriation of $50,000 was secured by Senator Perkins.

SAN FRANCISCO, CAL.—Reports state that the contract will soon be let for the erection of permanent buildings for hospital at the Presidio, to cost about $80,000.——The finance committee of the supervisors has decided to appropriate $60,000 for erecting new building and stables for the police department.

SANTA BARBARA, CAL.—This city will soon vote on the question of issuing $50,000 in school bonds.

STOCKTON, CAL.—Reports state that plans for a 3-story hotel to be erected near the Southern Pacific depot have been completed.

WATSONVILLE, CAL.—W. H. Weeks is preparing plans for a convent to be erected here to cost $120,000.

LIVERPOOL, N. S.—Bids are asked until Dec. 23 for constructing a public building. E. F. E. Roy, Secy Dept. Pub. Wks., Ottawa, Ont.

NEW WESTMINSTER, B. C.—John Coughlin & Son have been awarded the contract for the new Bank of Montreal building. Rattenbury & Tiarks, Archs.

HAVANA, CUBA.—Bids are asked until 12 o'clock, noon, Dec. 15, for the construction of one warehouse on pier now under contract to be built on the east side of Havana Bay, and six warehouses on grounds adjacent; bond, $25,000. Col. Frank J. Hecker, Ch. of Bureau of Transportation, Washington, D. C.

NASSAU, BAHAMA ISLANDS.—James Reilly & Co., New Haven, Conn., have been engaged to do the stone work on the new $2,000,000 hotel at this place.

WATER-WORKS.

BATH, ME.—The question of this city and of Brunswick owning their water-works is being discussed. The legislature will be asked to grant a charter to the cities for this purpose.

ROCKPORT, ME.—This place has voted to accept the contract of the Camden & Rockport Water Co. to supply this place with water. Granville W. Carleton and L. H. Lovejoy are on the committee.

BUFFALO, N. Y.—The commissioners of public works have decided to ask for more money, in addition to the $18,000 appropriated last spring, for the construction of three new chimneys at the water-works pumping station, each to be 225 ft. high.

CLAYTON, N. Y.—This place voted Dec. 6 to issue bonds for works and a sewerage system to cost $50,000. It is said that bids will be asked at once. F. L. Hall, Village Pres.

MOUNT VERNON, N. Y.—Press reports state as follows in regard to the water question: The council has decided to enter into a contract for ten years with the New York Suburban Water Co. Under the new contract the city pays $30 a year for each hydrant, and a hydrant must be rented for every 500 ft. of new pipe laid. This means an aggregate rental to be paid by the city of about $10,100. According to George E. Hoffmaster, Supt., this is about the same as is now being paid. The company also agrees to furnish meters to its 3,400 private consumers and to establish a meter rate of 22½ cts. for 100 cu. ft. The consumer is to pay for the expense of placing the meter in the house.

WATERVLIET, N. Y.—This place voted Dec. 12 to build new works to cost about $234,000. Chas. G. Whitbeck, Cy. Engr.

FRENCHTOWN, N. J.—We are informed that the proposed works for this place and Milford, N. J., to be built by the Spring Mill Water Co., will consist of 7¾ miles of 4 to 10-in. pipe, together with hydrants, etc., a 1,000,000-gallon reservoir, etc. The work will probably be let in the spring. The supply will be by gravity. Howard Mutchler, Pres.; J. W. Fladd, Secy. and Treas.; L. A. Francisco, Engr., all of Easton, Pa.

JERSEY CITY, N. J.—The street and water commissioners have awarded the contract for the new water supply to Patrick H. Flynn, of Brooklyn, N. Y., at $7,595,000. This is for plan No. 1, the supply to be taken from the Rockaway watershed. Up to Dec. 10 the mayor had not approved the contract.

VINELAND, N. J.—Chas. J. Keighley has offered to sell the works of the Vineland Water-Works Co. to the city for $200,000.

DRAVOSBURG, PA.—The American Water-Works & Guarantee Co. has secured permission from the U. S. government to lay water pipes under the Monongahela River from its works in McKeesport to supply this place with water.

ALLEGHENY, PA.—Wm. F. Patterson, Erie, Pa., has been awarded the contract for furnishing a new 250-HP. boiler and a Playford stoker for the Howard St. pumping station, at $5,298.

CANONSBURG, PA.—The council is considering the question of granting a franchise for works to J. P. McNary & Son. Councilmen Chambers and Greer may be addressed.

MILLVALE, PA.—Bids are asked until 6 p. m., Dec. 16, for furnishing and installing a vertical pump of 2,000,000 gallons a day. C. W. Dankmyer, Clk.

OIL CITY, PA.—The following submitted bids Dec. 5 to the water board for furnishing a 3,300,000-gallon vertical cross-compound pumping engine: Barr Pumping Engine Co., Philadelphia; Snow Steam Pump Works, Buffalo, N. Y., and Loretz & Co., New York.

HAWKINS POINT, MD.—Bids are asked by the U. S. Quartermaster, Fort McHenry, Md., until Dec. 24, for furnishing the material and for installing works at Hawkins Point. The works will have an artesian well, a pumping engine and a 10,000-gallon tank on a skeleton tower.

SMITHFIELD, VA.—J. W. Holloway writes us that the proposed works will not be built until the spring.

HIGHPOINT, N. C.—W. G. Bradshaw, Mayor, writes us that nothing definite has yet been done towards establishing works. The legislature, which convenes in January, will be petitioned to grant the city authority to issue bonds for works. Then an election will be held, and if the proposition is carried arrangements for the construction will be begun. Population (1890), 2,179.

SPARTANBURG, S. C.—John H. Montgomery writes us that nothing has yet been done towards securing new works, noted in our issue of Dec. 1.

GATE CITY, ALA.—Nicholas S. Hill, Jr., Ch. Engr. Water Bd., Baltimore, Md.; Canfield & Irwin, St. Louis, Mo., and Thos. P. Grasty, of the "Manufacturers Record," Baltimore, are making tests for a water supply at this place. If the tests are successful it is said that works will be built to supply water to a number of manufacturing plants that it is proposed to erect here, and also to Birmingham, Ala. It is estimated that a flow of 4,000,000 gallons a day can be secured from artesian wells.

PRATT CITY, ALA.—The legislature will be asked to grant this place authority to issue $25,000 in bonds for the proposed works. Dr. George Brown and W. G. Powell, Mayor, may be addressed.

COLUMBUS, O.—The director of public works will again soon advertise for bids for constructing the proposed new storage reservoir in the Scioto River.

LISBON, O.—E. C. Cooke, Society for Savings Bldg., Cleveland, has submitted a report on the proposed improvements to the works. It is proposed to put in a filter plant of 500,000 gallons a day, to cost $12,000.

SHERIDAN, IND.—The council has granted a 30-year franchise for works to the Sheridan Light & Water Co., Fort Wayne. The works will cost about $35,000. Chas. Pape, Sr., and others of Fort Wayne, Ind., are interested. The machinery will be built by the Fleming Mfg. Co., Fort Wayne, of which Mr. Pape is president.

GRAND RAPIDS, MICH.—O. N. Watson, Chn. Com. on Ways and Means, is making efforts to have the board of public works authorized to buy a 20,000,000-gallon pump. It is probable that bids for furnishing the machinery will be asked in a short time.

CHICAGO, ILL.—Bids are asked until 11 a. m., Dec. 16, for furnishing brass castings, hydrants, and stop valves, etc. L. E. McGann, Comr. Pub. Wks.

MONMOUTH, ILL.—The council, it is reported, will soon order plans prepared for the proposed improvements to the works. D. W. Mead, Rockford, Ill., will probably prepare the plans. I. Trumbull, Chn. Com.

ALLISON, IA.—W. F. Roy, Mayor, writes us that an election will probably be held in January to vote on the question of building works. Population, 500.

OTTUMWA, IA.—John A. Cole, Old Colony Bldg., Chicago, is preparing plans for certain improvements to the works of the City Water Co., according to reports. E. F. Starkweather, Mgr.

BERMIDJI, MINN.—This place voted Dec. 6 to issue $7,000 in bonds for works.

CANBY, MINN.—M. B. Haynes, 201 South Front St., Mankato, Minn., is preparing plans for works for this place. The contract for the work will soon be let.

MINNEAPOLIS, MINN.—We are informed that the council on Dec. 9 rejected the bids received Aug. 26 for furnishing one or two 10,000,000-gallon vertical triple expansion pumping engines for the north side pumping station. The bids were given in our issue of Sept. 1. F. W. Cappelen, Cy. Engr.

PELICAN RAPIDS, MINN.—This place voted Dec. 7 to issue $14,000 in bonds for works and an electric light plant, according to reports.

WHEATON, MINN.—The question of securing works is again being considered, according to reports. M. B. Haynes, Engr., 201 South Front St., Mankato, Minn.

CORSICANA, TEX.—The Corsicana Water Co. has secured a lease for 20 years of 3,000 acres of land about four miles from here for an increased water supply. W. N. Coler, Jr., may be addressed.

DARLINGTON, OKLA.—Bids are asked until Jan. 5 for furnishing the materials and for constructing works for the Arapahoe Boarding School at the Cheyenne and Arapahoe Indian Agency, Darlington. Address W. A. Jones, Indian Comr., Washington, D. C., or Maj. A. E. Woodson, Acting Indian Agent, Cheyenne Agency, Darlington.

COLORADO SPRINGS, COLO.—It is stated that General Palmer, of this city, has filed plans for works for Glen Ayrie.

FLORENCE, COLO.—We are informed that the following bids were received Nov. 28 for furnishing the materials and for constructing the works, as advertised in Engineering News; Geo. Killian, Town Clk.; Hiram Phillips, Engr., Oriel Bldg., St. Louis:

Bidder.	Complete—Using cast iron pipe.	Complete—Spiral riveted pipe.
Ruemmell & Siebert Refrigerating Mach. Co., St. Louis, Mo.	$177,205	$165,740
Orman & Crook, Pueblo, Colo.	169,578	148,020
*H. C. McCreary, Denver, Colo.	75,802	6,000
Holmes & Allen, Denver, Colo.	172,375	164,375
R. P. McDonald, Denver, Colo.	144,200	†132,000
Greenville Const'n Co., Greenville, O.	139,300	129,800
Mitchell Bros., Denver, Colo.	138,000	‡130,675
Shutt Improvement Co., Pueblo, Colo.	138,000	128,000
Gedles & Searle Stone Co., Denver, Colo.	137,000	.....
J. M. O'Rourke, Denver, Colo.	136,200	.....

*First bid for cast iron only; second bid for standpipe, without foundation. †Complete with wooden pipe, $140,200. ‡Wooden pipe, $119,687.

BERKELEY, CAL.—Money is being subscribed for the proposed new works, 10 citizens having offered to give $1,000 each. About 122 acres of land will be purchased near San Pablo for the source of water supply. The works will cost about $450,000. J. N. Le Conte, Capt. W. H. Marston, J. J. Mason and Anson S. Blake are on the committee.

LAKEPORT, CAL.—An election will be held Dec. 20 to vote on the question of building works to cost about $17,250. In 1896 A. L. Adams, 401 California St., San Francisco, prepared plans. H. V. Keeling, Town Clk.

PORT COSTA, CAL.—The Port Costa Water Co. has been incorporated by G. W. McNear, P. E. Bowles, G. W. McNear, Jr., F. W. McNear and S. B. McNear. Capital stock, $250,000, of which $110,000 has been subscribed.

JEROME, ARIZ.—John Burkes writes us that the water supply will be secured from springs 500 ft. above the city. It is proposed to construct tanks at the springs and to lay pipes to the city. The citizens are now formulating plans. Population, 3,000.

PRESCOTT ARIZ.—This city has sold $150,000 of bonds to the U. S. Mortgage & Trust Co., 59 Cedar St., New York, for the proposed works. It is stated that arrangements will be made at once to construct the works. J. J. Fisher, Cy. Engr.

CHATHAM, N. B.—It is stated that plans are being prepared for the proposed works.

MONTREAL, QUE.—Alderman Laporte, of the committee, is urging the committee to consider the advisability of filtering the drinking water.

MIDLAND, ONT.—The question of building works is being considered, according to reports.

BUCHAREST, ROUMANIA.—Bids are asked until Jan. 9 for sinking two tubular wells for collecting water for a water supply and for furnishing the city with drinking water. The wells will cost about $36,000, and the piping, etc., for the water supply, about $470,000. Address Mr. Radu, Ch. Dept. of Construction, 9 Strada Mihai Voda, Bucharest, or the Roumanian Legation at Washington, D. C., where plans and specifications (in French) may be seen.

IRRIGATION.

BEAUMONT, TEX.—Reports state that the Southern Rice & Trust Co. has purchased 6,500 acres of rice land in Jefferson county, near this place, and proposes to construct an irrigation system at once. Alfred F. Bissell, Secy. and Mgr., Des Moines, Ia. An office will be opened in the First National Bank Bldg.

SAN BERNARDINO, CAL.—Hiram H. Smith filed a claim Nov. 28 to 5,000 ins. of water for irrigation on the Rancho San Bernardino, between the north and south slope of Live Oak canon.

SPOKANE, WASH.—It is reported that E. B. Palmer, 530 Pioneer Block, Seattle, Wash., has filed a claim to Liberty Lake, for irrigation purposes.

LOVELOCKS, NEV.—Chas. N. Sain, Secy. Humboldt Irrigation Co., is making efforts to have eastern capitalists become interested in a proposed irrigation system to reclaim land along the Humboldt River, to cost about $200,000, according to reports.

NEW COMPANIES.—McElmo Water Supply Co., McElmo, Colo.; $500,000; to furnish water for irrigation. Morris B. Colt, Alamosa, Colo.; John H. Knabel, Ernest Knabel, of Colorado, and others.

SEWERAGE.

BOSTON, MASS.—Bids are asked until Dec. 16 for building about 1,025 ft. of pipe sewers in Dorchester District. B. W. Wells, Supt. of Sts.

MIDDLEBORO, MASS.—The state board of health has decided that the system for this place must be improved as it pollutes the Nemasket River. The improvements are estimated to cost about $40,000. F. S. Tanzey, Mayor.

CLAYTON, N. Y.—This place voted Dec. 6 to issue $50,000 in bonds for a system and water-works. It is stated that bids for the work will soon be asked. F. L. Hall, Village Pres.

DEPEW, N. Y.—S. Jay Ohart, Village Pres., writes us that next year the village shall probably construct lateral sewers to cost $10,000, sewage disposal works to cost $20,000, etc., in addition to the work already done at a cost of $55,000.

MOUNT VERNON, N. Y.—Bids are asked until Jan. 3 for constructing 12-in. pipe sewers in two streets. W. N. Hoyt, Clk.

NEW YORK, N. Y.—Bids are asked until Dec. 23 for constructing a wooden barrel sewer under pier No. 36, North River. Jas. Kane, Comr. of Sewers, 265 Broadway, Manhattan.—Bids are asked until Dec. 28 for furnishing and laying a cast-iron sewer pipe on Randall's Island, N. Y. H. J. W. Keller, Pres. Dept. of Charities, foot East 26th St., Manhattan.

BAYONNE, N. J.—The bids for constructing a main sewer through the Centreville district received Dec. 6 have been returned to the bidders.

EAST ORANGE, N. J.—The Essex County Park Commission has adopted plans for a storm sewer to drain the valley through which the East Orange Boulevard runs. Estimated cost, $60,000. Wm. H. V. Reimer, Engr., East Orange.

JERSEY CITY, N. J.—The board of education wants the council to appropriate $12,000 for improving the drainage of school No. 12.

RED BANK, N. J.—A. C. Harrison, Town Clk., writes us that the following bids were received Nov. 29 for constructing certain sewers, as advertised in Engineering News:

* P. H. Harrison & Son, 220 Broadway, New York	$9,652
Doolittle & Brooks, 26 West Broadway, New York	12,333
J. Erwin Hillpot, Bound Brook, N. J.	13,502
A. Costa, Orange, N. J.	13,519
F. Kohlmeyer & Co., 102 Park St., New York	10,704

* Awarded contract.

KINGSTON, PA.—Bids are asked by the secretary of the council for building sewers in certain streets. P. B. Reynolds, Pres. Council; W. P. Somers, Secy.

NORRISTOWN, PA.—The trustees of the state hospital want an appropriation for repairing the system at the hospital. Frank C. Smith, Treas.

STEELTON, PA.—It is stated that the council is arranging for the construction of the proposed system to cost about $54,000. The system will require about 52,600 ft. of 8-in. sewer pipe, 8,400 ft. of 10-in. pipe, 3,730 ft. of 12-in., 890 ft. of 15-in. and 2,250 ft. of 18-in.; 100 ft. of 12 and 16-in. outlet pipe. Under the canal will be laid 75 ft. of 16-in. siphon and the same length of 12-in. pipe. There will be 73 flush tanks, 74 manholes, 117 lamp-holes and one flush inlet. H. H. Campbell, Pres. Council.

CUMBERLAND, MD.—The council has decided to build a sewer in South Cumberland at a cost of $6,000. Councilmen Shriver and E. F. Rizer may be addressed.

AIKEN, S. C.—Bids are asked until Jan. 18 for constructing pipe sewers and a filtration plant, as stated in our advertising columns. N. Wilson Davis, Engr.; M. B. Woodward, Mayor.

MONROE, LA.—J. M. Kelley, Secy., writes us that nothing will be done toward building the proposed system, water-works, etc., until the bonds are sold, which will be next year. The bonds were voted in November.

OWENSBORO, KY.—Bids are asked until Dec. 17 for constructing 1,500 ft. of 20-in. pipe sewers and 250 ft. of open ditch. W. P. Small, Mayor.

CINCINNATI, O.—Bids are asked until Jan. 3 for constructing sewers in Bassett Road. Geo. H. Spellmire, Clk. Bd. City Affairs.

COLUMBUS, O.—Julian Griggs, Ch. Engr. Dept. Pub. Improvements, informs us that no definite steps for sewers in the west side have yet been taken. There is under contract 2,212 ft. of 42-in. brick drain and about half a mile in Mound St., on the west side, which will connect the Mound St. storm sewer with the Renick Run system and overflow into the latter when the former is two-thirds full.

YOUNGSTOWN, O.—Bids are asked until Dec. 17 for constructing sewers in Hayes Ave. H. W. Calvin, Clk.

FORT WAYNE, IND.—The question of building a new intercepting sewer is being considered by the board of public safety. Estimated cost, $150,000. Geo. H. Wilson, and Dr. Kessler, a member of the board of health, may be addressed.

OTTUMWA, IA.—The council proposes to build a system in the south side. Councilmen Keefe, Chn. Com., and Peck may be addressed.

GUTHRIE, OKLA.—The council has decided to engage an engineer to prepare plans for the proposed system. Councilman Saunders may be addressed.

MACON, MO.—S. D. Lamb, Mayor, writes us that this place voted on Dec. 6 to build a system to cost about $24,000. Of this amount Col. Blees has offered to contribute $5,000. No arrangements have been made for building the system. C. L. Farrer, Clk.

ST. LOUIS, MO.—We are informed that Robt. Wycoff submitted the lowest bid Dec. 6 for sewers in Branch St., sewer district No. 35. Patrick McIntyre submitted the lowest bid for sewers in Elliott Ave., district No. 46. B. H. Colby, Sewer Comr.

BAKERSFIELD, CAL.—A. I. Lightner, Cy. Clk., writes us that no definite action has yet been taken in regard to the proposed system, to cost $100,000. The matter may come up early next year.

NEVADA CITY, CAL.—The board of trustees has engaged W. F. Englebright to prepare plans for the proposed system.

GARBAGE DISPOSAL—STREET CLEANING

ATLANTIC CITY, N. J.—Bids are asked until Dec. 19 for collecting and removing the garbage of this city to the present crematory until the new one is completed; check, $100. E. D. Irelan, Cy. Clk.

PASSAIC, N. J.—Dr. A. Warde Van Riper, Pres. Bd. of Health, is urging the board to take definite steps toward securing better arrangements for the disposal of the garbage of the city.

ATLANTA, GA.—A bill has been introduced in the legislature amending the charter of the city to provide for the construction of a crematory in the center of the city.

COVINGTON, KY.—The aldermen have awarded the contract for removing the garbage and ashes in both districts of the city for one year to Gerhard Exterkamp.

LOUISVILLE, KY.—Dr. M. K. Allen, Health Officer, has submitted a report on garbage crematories, and has recommended the appointment of a committee to consider the question of a plant for this city.

CLEVELAND, O.—Bids are asked until Dec. 31 for cleaning the market grounds for one year. E. A. Abbott, Dir. of Police.

INDIANAPOLIS, IND.—Bids are asked by the board of public works until Jan. 15 for cleaning the streets for 1899. The specifications call for two sets of bids and contractors will be permitted to bid on both forms. Bid A calls for the work as done last year. That is, the contractor estimates his price for keeping an area of 10,000 sq. ft. clean for the whole year. The new form is known as bid B, and calls for an estimate for cleaning the streets of the whole city. At present the city is paying 14¾ cts. a 10,000 ft. in addition to the expense that it has to bear to maintain the orderly or day service. Bid B fixes the time limit from March 15, 1899, to Dec. 15, 1899. It also calls for machine sweeping from Jan. 1, to March 15, 1899, and from Dec. 15, 1899, to Jan. 1, 1900. The specifications require that all work must be done during the light time and provides a penalty for violation of this provision. It also sets forth that any work which the board or its representatives deem unsatisfactory will be subject to fine at the board's discretion. The sweepings are the property of the contractor, and he is held responsible for the disposal thereof. Both forms of bids require hand carts in the down-town portion of the city to collect all dirt, droppings and accumulations. The specifications require these carts to be similar to those which the city has introduced a short time ago, and they shall go on duty at 8 o'clock in the morning and be on until 5 o'clock in the afternoon.

MILWAUKEE, WIS.—Judge Sutherland, in the Superior Court, has rendered a decision in favor of the construction of the proposed crematory by the Engel Sanitary Crematory Co.

ST. JOSEPH, MO.—City Physician Graham is securing information, estimates, etc., for the disposition of the city garbage. Population, 75,000.

SAN FRANCISCO, CAL.—The Garbage Sanitary Cremation Co. has been incorporated, with a capital stock of $100,000, of which $25,000 has been subscribed. Incorporators, Adolph Ramish and Martin C. Marsh, Los Angeles, Cal., and Charles L. Asher, John Malowansky and Jacob Shaen, San Francisco.——The supervisors have cancelled the contract with the Sanitary Reduction Co., which provided that the city should pay the operating expenses and a reasonable profit to the company. The supervisors had appropriated $150,000 for this work.

SAN FRANCISCO, CAL.—Bids were asked until Dec. 12 for cleaning the paved streets, alleys, etc., to Jan. 1, 1901. John A. Russell, Secy. Bd. of Supervisors.

SANTA CRUZ, CAL.—Bids are asked until Jan. 2 for the purchase of a 50-year franchise for pumping sea water and for laying pipes, etc., the franchise having been applied for by Jno. E. Armstrong and Wm. Armstrong. J. L. Wright, Cy. Clk.

STREETS AND ROADS

BOSTON, MASS.—The town of Revere has voted to appropriate $3,000 for the repair of roads.

WETHERSFIELD, CONN.—It has been voted to macadamize a portion of Newington Ave.

JOHNSTOWN, N. Y.—It is reported that a bill will soon be presented to the state legislature to authorize the construction of a macadam road from Amsterdam to Northville, Fulton county, a distance of about 20 miles. The county supervisors will also be asked to pass the same bill.

BUFFALO, N. Y.—Bids are asked until Dec. 20 for furnishing and constructing asphalt pavement on portions of Erie St., Booth Alley, Mills Alley and for an 18-in. sewer on Miami St. R. G. Parsons, Secy. Bd. Pub. Wks.——The park board on Dec. 6 authorized the committee on grounds and roads to construct the proposed speedway on Humboldt Parkway.

DEPEW, N. Y.—S. Jay Ohart, Village Pres., informs us that $15,000 will probably be spent next year for macadamizing.

NEW ROCHELLE, N. Y.—C. Oliver Iselin made a proposition to the village trustees Dec. 5 to rebuild the entire street system of New Rochelle and keep it in repair for five years. President Clark may be addressed.

NEW YORK, N. Y.—Bids are asked until Dec. 21 for furnishing material and for constructing roads, sidewalks, curbing, grading, excavating and landscape gardening on the grounds of Bellevue Hospital. John W. Keller, Pres. Dept. Pub. Charities, East 26th St.

ATLANTIC CITY, N. J.—Bids are asked until Dec. 19 for constructing a road from Baltic Ave. to the crematory, and until Dec. 26 for paving certain streets, according to reports. Emery D. Irelan, Cy. Clk.

HACKENSACK, N. J.—Ernest Koester, Atty., Hackensack, writes us that at the election in Franklin township Dec. 6 it was voted, by a large majority, to issue $75,000 in bonds for the construction of macadam roads.

BRADFORD, PA.—Main St. will probably be paved with brick next summer, to cost from $15,000 to $20,000.

LEBANON, PA.—This city is beginning to agitate the question of having paved streets. With the exception of about half a block of asphalt block paving, the streets are of limestone and cinder macadam. A project is now before the council to have North Eighth St. substantially paved. George W. Hayes, Cy. Engr.

PHILADELPHIA, PA.—Bids are asked until Dec. 15 for constructing and repairing sheet asphalt pavement for the year 1899, according to reports. Thos. M. Thompson, Dir. Dept. Pub. Wks.

ANNAPOLIS, MD.—Bids are asked until Dec. 19 for distributing 6,000 bus. of shells on the Mill Creek Road and 30,000 bus. of shells on the road from Mountain Road to the Curtis Creek bridge. Charles Duvall, Road Comr.

WASHINGTON, D. C.—Bids are asked until Dec. 17 for improving Connecticut Ave. west of Rock Creek. John B. Wight, District Comr.

CLEVELAND, O.—The council passed resolutions Dec. 5 to improve portions of nine streets. Howard H. Burgess, Cy. Clk.

ZANESVILLE, O.—Bids are asked until Dec. 23 for furnishing and constructing brick paving, grading, etc., on North Seventh St. Chas. N. Bainter, Cy. Clk.

INDIANAPOLIS, IND.—Bids are asked until Dec. 19 for gravel and brick paving on Clifton and Miami Sts., respectively. M. A. Downing, Comr. Pub. Wks.

SULLIVAN, IND.—Bids are asked until Dec. 13 for grading and paving on Cross and Washington Sts. Jacob Mahley, Pres. Bd. Trustees.

CHICAGO, ILL.—Bids are asked until Dec. 19 for repairing the roadway and sidewalks of the Jackson St. bridge and viaduct. L. E. McGann, Comr. Pub. Wks.

ST. PAUL, MINN.—L. W. Rundlett, Cy. Engr., submitted plans to the board of public works Dec. 8 for the macadamizing of Como Ave., between Dale and Rice Sts.; estimated cost, $42,715. The park board will be consulted before any action is taken.

TOPEKA, KAN.—A petition to pave portions of Huntoon St. with brick, 30 ft. wide, has been referred to the street committee.

KANSAS CITY, MO.—Bids are asked until Dec. 17 for furnishing the material and constructing plank sidewalks on portions of eight streets, and grading three streets. Henry A. Wise, Cy. Engr.

ST. LOUIS, MO.—Bids are asked until Dec. 23 for grading portions of 20 streets, brick paving on eight streets and macadamizing on nine streets. Robt. E. McMath, Pres. Bd. Pub. Improvements.

HOUSTON, TEX.—Bids are asked until Jan. 9 for 8,500 cu. yds. of excavation, 19,000 sq. yds. of paving and 4,500 lin. ft. of stone curbing on Main St., as stated in our advertising columns. S. H. Brashear, Mayor; J. Austin Miller, Cy. Engr.

SAN MATEO, CAL.—Bids are asked until Dec. 19 for constructing 10 cross-walks of concrete foundation, and for grading C St. R. H. Jury, Cy. Clk.

MANUFACTURING PLANTS.

HYANNIS, MASS.—A fire here, Dec. 11, destroyed the engine house and carpenter shop of the New York, New Haven & Hartford R. R. Co.; loss, about $75,000.

WORCESTER, MASS.—Vernon Price, of this place, will erect a factory and boiler house, 102 × 75 ft., on Mill St. near Gates Lane, for the American Drug Plate Co.

ALTON, R. I.—A fire in this village, Dec. 5, destroyed the Walton Woolen Mill; estimated loss, about $75,000. W. A. Walton, owner.

DANBURY, CONN.—The hat factory of John W. Green & Co. was destroyed by fire Dec. 7. Loss, $110,000; insurance, $110,000.

SOUTH MANCHESTER, CONN.—Frank Goetz contemplates the erection of a 2-story brick cracker factory building, 150 × 40 ft.

BINGHAMTON, N. Y.—E. A. Beman will erect a 4-story brick factory building, 40 × 85 ft., on Chenango and State Sts., to cost between $10,000 and $12,000.——The Binghamton Cold Storage Co., according to reports, will erect an ice manufacturing plant. O. S. Heller, R. E. Hooper and G. G. Kappael are interested.

MECHANICSVILLE, N. Y.—The Duncan Co. contemplates enlarging its plant at a cost of over $100,000, according to reports.

NEW YORK, N. Y.—Reports state that the Manhattan Dry Dock & Construction Co. will build a dry dock and ship building yard in this harbor. E. C. Machen and Frank Brooks are said to be interested.

ALLEGHENY, PA.—The Pennsylvania Car Wheel Co. will erect a storage house, boiler house and foundry, to cost about $6,000.

CHESTER, PA.—The Keystone Plaster Co. will erect an addition, 180 × 60 ft. to its plant on Deleware Ave.

IRWIN, PA.—Reports state that the Penn Electrical Co. of Pittsburg will remove its plant to this place. F. C. Hockensmith and D. M. Wagner, of Irwin, are interested.

GREENVILLE, PA.—The Kimberly Iron Co., of Sharon, Pa., contemplates improving its plant at this place, to cost about $25,000.——The Shelby Tube Co., according to reports, will install considerable machinery in its plant.

KUTZTOWN, PA.—The plant of the Kutztown Foundry & Machine Co. was partially destroyed by fire, Dec. 10, causing a reported loss of $ 0,000. The new addition to the plant was not burned.

MONESSEN, PA.—It is reported that the Page Woven Wire Fence Co., Adrian, Mich., has been given ten acres of land at this place for the erection of a plant.

PITTSBURG, PA.—Laughlins & Co., according to reports, will erect a $750,000 furnace on 2d Ave.

UPPER BLACK EDDY, PA.—The Hero Knitting Mill Co. has been organized, and according to reports will erect a mill soon.

YORK, PA.—Reports state that a 3-story silk factory building, 250 × 50 ft. with engine room and boiler house, will be erected at Norway Park, a suburb of this place. Judge Stewart is said to be interested.

BALTIMORE, MD.—The Thistle Mfg. Co. contemplates making a number of improvements to its plant.

TANEYTOWN, MD.—T. E. Eckenrode, Taneytown, and Geo. W. Albaugh, Westminster, Md., expect to erect a roller mill, with capacity of 50 bbls. a day, at this place.

NEWPORT NEWS, VA.—Reports state that the Marsden Cellulose Co., of Philadelphia, Pa., will establish a main plant at this place, to cost $250,000.

CLEVELAND, O.—The Forest City Foundry & Mfg. Co. will erect a 5-story steel and brick building, 133 × 90 ft. on Washington and West Centre Sts. Fugman & Ulrich, Architects.——M. A. Bradley will erect a steel factory building 74 × 114 ft., on St. Clair St. and Park Place.

HAMLET, IND.—Reports state that Jamison & Heidrich, Peoria, Ill., will erect a beet sugar plant at this place.

DETROIT, MICH.—The Michigan Forge Co. will erect a large steel plant on the site of its present plant, the buildings of which are now being demolished.

PONTIAC, MICH.—The Oakland Sugar Mill Co., according to reports, will erect a factory building, to cost from $350,000 to $500,000.

WYANDOTTE, MICH.—The Michigan Alkali Co. will erect an addition to plant No. 1 for the manufacture of Portland cement and an addition to plant No. 2 to increase its facilities for the manufacture of soda ash.

OMAHA, NEB.—Metz Bros. contemplate the erection of a brewing plant here to cost about $225,000.

GAS PLANTS.

WASHINGTON, D. C.—Bids are asked until Dec. 27 for installing gas and electric light fixtures in the U. S. post office building. O. L. Spaulding, Acting Secy. Treasury Dept.

FINDLAY, O.—Wm. B. Cutter, Buffalo, N. Y., has purchased the city natural gas plant for $150,000. It is proposed to construct a plant for the manufacture of artificial gas, according to reports.

MILWAUKEE, WIS.—Reports state that the Western Gas Co. wishes to let a contract for a gas holder of 3,000,000 cu. ft. capacity.

LOS ANGELES, CAL.—It is reported that the works of the Standard Oil Co. at this place have been destroyed by fire, at an estimated loss of $225,000.

EVANSTON, ILL.—The Northwestern Gas Light & Coke Co., Evanston, has filed a trust deed with the Equitable Trust Co., Chicago, to secure a $2,000,000 bond issue, for the extension and improvement of the works, according to reports. Rufus C. Dawes, Pres.

NEW COMPANIES.—Acme Acetylene Gas Co., New York city; to manufacture, sell and use gas machines and generators; $500; William A. Newell, E. J. Fenlon, John Forman, George H. Graham and W. H. Graham, all of New York.

Patt Oil Co., Elmira, N. Y.; $5,000, with $500 paid in; to deal in natural gas and oil; Thos. S. Flood, Howard H. Hallock, Boyd McDowell, Edgar Denton, Alfred E. Ackley, Elmira.

Natural Gas & Development Co., Ottawa, Ont.; $9,000; to drill for natural gas, oil and minerals; H. L. T. Skinner, H. J. Allen, R. A. Watson, A. M. Blair, G. L. Pancoast, J. Halloren, S. F. Beele, J. E. Byers, N. A. Hamilton, Ottawa.

Peninsula Gas & Chemical Co., Washington, N. C.; $20,000; to construct and maintain gas plants for light and heat, also the manufacture of chemicals, etc.; A. McDowell, Robert Green, U. S. Fulford, C. W. Bilfinger, and Stephen C. Bragaw.

MISCELLANEOUS CONTRACTS.

PARK.—Joliet, Ill.—The council has purchased 40 acres of land for a park.

STEEL WALK.—Cape May, N. J.—The council has decided to construct an elevated steel walk along the beach.

TELEPHONE LINE.—Carlisle, Pa.—Reports state that the Pennsylvania Telephone Co. will establish an exchange at this place.

TUNNEL.—Santa Barbara, Cal.—Bids are asked by the city clerk until Dec. 22 for constructing 500 ft. of additional tunnel, according to reports.

SCOW BOAT.—New York, N. Y.—Bids are asked until Dec. 27 for furnishing a 200-ton scow boat. F. J. Lantry, Comr. Dept. Correction, 148 East 20th St.

SLUICEWAYS.—Wilmington, Del.—Bids are asked by the Levy Court until Dec. 20 for constructing four sluiceways on the St. Augustine marsh, to cost $3,500.

FIRE APPARATUS.—Averill Park, N. Y.—The council has decided to purchase a second-hand fire engine, a hose cart and to erect a fire station; estimated cost, $2,000.

DAM.—Indianapolis, Ind.—The board of public works proposes to construct a dam across the White River below the proposed parkway, according to reports.

FIRE HOSE.—St. Louis, Mo.—Bids are asked until Dec. 16 for furnishing 4,000 ft. of 2½-in. rubber-lined fire hose and for rubber suction hose. Jas. Richardson, Comr. Supplies.

TELEPHONE LINE.—Pocomoke City, Md.—It is reported that the Worcester Telephone Co. decided Dec. 8 to extend a line to Pocomoke City, Stockton and other points in the county.

LUMBER, ETC.—New York, N. Y.—Bids are asked until Dec. 23 for furnishing pine boards and spruce plank, joist, timbers, etc. Geo. C. Clausen, Comr. Parks, Arsenal, Central Park.

HOSPITAL VESSEL.—New York, N. Y.—Mrs. Helen C. Juillard has appropriated $32,000 for the construction of a floating hospital for the St. John's Guild. Wm. L. Strong, Pres.

TELEPHONE LINE.—Piedmont, W. Va.—The Gordon Telephone Co., Piedmont, will extend a line to Barnum, W. Va., and to Bloomington, Md., and Cumberland, Md., according to reports.

REPAIR OF FIRE BOAT.—New York, N. Y.—Bids are asked until Dec. 21 for furnishing material and repairing the fire boat "Zophar Mills." John J. Scannell, Fire Comr., 157 East 67th St.

TELEPHONE WORK.—Petersburg, Va.—Reports state that the Long Distance Telephone Co. has secured franchises in every town between Petersburg and Lynchburg for the construction of a telephone line.

STEAM BOILERS.—Alexandria, Egypt.—Bids are asked by the administration of ports and lighthouses at the controller general's office, Alexandria, until Dec. 31, for furnishing two steam boilers, according to reports.

SIDEWALK SHELTERS.—Toronto, Ont.—Bids are asked until Dec. 19 for furnishing material and constructing corrugated iron sidewalk shelters under the bridges at Queen St. subway. John Shaw, Chn. Bd. Control.

TELEPHONE EXCHANGE.—Adairsville, Ga.—Reports state that a company is being organized to construct a telephone exchange for the near-by towns. J. P. Bowdoin is receiving estimates for 50 miles of telephone line.

PORTLAND CEMENT.—St. Paul, Minn.—Bids are asked until Jan. 12 for furnishing American Portland cement, f. o. b. cars, as stated in our advertising columns. Maj. Frederic V. Abbot, U. S. Engr., Globe Bldg.

ENGINEERS' SUPPLIES.—New York, N. Y.—Bids are asked until Dec. 19 for furnishing packing, plumbing material, earthen pipe, brass pipe, valves, tools, etc. John W. Keller, Pres. Dept. Pub. Charities, East 26th St.

TELEPHONE CONDUITS.—Boston, Mass.—The Massachusetts Telephone & Telegraph Co. was granted a franchise Dec. 12, by the board of aldermen, to construct an underground system of conduits in all the public streets.

POLICE SIGNAL SYSTEM.—Los Angeles, Cal.—The board of police commissioners awarded a contract to the Gamewell Fire Alarm Telegraph Co. Dec. 3 for installing a police signal system of 50 signal boxes, to cost about $10,000.

PUMPING ENGINE.—Charleston, S. C.—Bids are asked by the U. S. Engineer, at Charleston, until Jan. 10, for removing old and furnishing and placing new pumping engine on board the dredge "Charleston," as stated in our advertising columns.

TELEPHONE FRANCHISE.—McKees Rocks, Pa.—The Central District & Printing Telegraph Co. has been granted a franchise to construct and maintain a telephone and telegraph system in this borough. J. P. Gillen, Clk.; David Shaw, Burgess.

DREDGING.—New York, N. Y.—Bids are asked until Dec. 23, for dredging in the East River, near Catharine St., about 11,000 cu. yds. of mud, 7,200 cu. yds. of sand, loose stones, etc., and 3,750 cu. yds. of cribwork. J. S. Cram, Comr. Docks, Pier A, North River.

PORTLAND CEMENT.—Duluth, Minn.—Bids are asked until Jan. 10 for furnishing 12,000 bbls. of Portland cement for the concrete superstructure for piers for the Duluth ship canal, as stated in our advertising columns. Maj. Clinton B. Sears, U. S. Engr., Duluth.

TELEPHONE SYSTEM.—Sharon, Pa.—Reports state that it is proposed to consolidate the Citizens' Telephone Co., of Mercer and Lawrence counties, and extend the lines to Meadville, Franklin, Oil City, Erie and Youngstown. O. R. H. Adams, Baltimore, Md., is interested.

TIMBER BULKHEADS.—Boston, Mass.—We are informed that the following bids were received Dec. 7 for the construction of timber bulkheads on Summer St. extension: Ross & Fowler (accepted), $7,425; Wm. J. Lawler, $7,850; Miller & Ellis, $8,570. All local bidders. Wm. Jackson, Cy. Engr.

FIRE APPARATUS, ETC.—Philadelphia, Pa.—Bids are asked until Dec. 20 for furnishing fire hose, hand fire extinguishers, several steam fire engines, hose wagons and chemical engines; also water towers, aerial trucks, extension ladders, general fire supplies, general electrical supplies and bicycles. Dir., Frank M. Riter, City Hall.

FIRE APPARATUS.—New York, N. Y.—Bids are asked until Dec. 21 for furnishing one Holloway double tank chemical engine; one fourth size steam fire engine with La France pumps and one fourth size steam fire engine with Fox sectional water tube boiler; 3,600 ft. 2½-in. rubber lined fire hose. J. J. Scannell, Fire Comr., 157 East 67th St.

TUBULAR BOILERS.—San Francisco, Cal.—U. Sebree, Commander U. S. Navy, Inspector 12th Lighthouse District, informs us that the following bids were received Nov. 28 for furnishing two return tubular boilers of the Scotch type, for the lighthouse tender "Madrona:" Patrick F. Dundon, $18,443; Union Iron Works, $22,800; Risdon Iron & Locomotive Works, $24,950; T. J. Moynihan, $27,000. All local bidders.

PARK WORK.—New York, N. Y.—Bids are asked until Dec. 22 for constructing and improving grounds for use of the New York Zoological Society, in Bronx Park, including 12,500 cu. yds. of earth excavation, 3,600 cu. yds. of rock excavation, 9,700 cu. yds. of fill, 6,050 lin. ft. of 8 to 18-in. vitrified drain pipe, 2,000 lin. ft. of blue stone steps, 132,000 sq. ft. of gravel walks, 7,100 sq. yds. of telford and 3,700 sq. yds. of macadam pavement; surety $20,000. Geo. C. Clausen, Comr. Parks, Arsenal, Central Park.

CONTRACT PRICES.

BULKHEAD, WALLS, ETC.—Boston, Mass.—We are informed that the park commissioners received the following bids Dec. 5, 1898, for filling and bulkhead at the Ferns between Beacon St. and the Harbor Commissioners' line:

Bidder.	Filling, a cu. yd.	Bulkhead.	Total.
Perkins & White, Charlestown	$0.51	$4,375	$13,555
J. W. Hurley, Melrose, Mass.	.59	4,583	15,203
W. L. Miller, 17 Milk St., Boston.	.57	4,995	15,255
Johnson & Letteney, Boston	.65	5,900	17,600

Bidder.	Walls at Jamaica Park, a lin. ft.	Walls at Franklin Park, a cu. ft.
D. F. O'Connell, 34 School St., Boston	$1.70	$1.95
J. Sutherland, 17 Otis St., Boston	1.81	1.70
M. Ruso, 240 North St., Boston	1.95	2.30
Woodbury & Leighton, Boston	1.95	1.95
W. L. Miller & Co., 17 Milk St., Boston	2.24	2.24
J. A. Whittemore's Sons, Roslindale	2.24	1.77
Cogan Bros. & Forschner, Atlantic	2.25	2.25
G. R. Dugad & Son, 40 State St., Boston	2.33	....
R. L. Barrett, 69 Windsor St., Roxbury	2.35	2.35
W. B. Cass, 23 Court St., Boston	2.37	2.57
McHale & Quinn	2.39	2.54
T. F. Welch, West Roxbury	2.63	....
C. H. Dodge, 23 Conmore St., Boston.	2.93	2.93
J. C. Coleman & Sons, Boston.	3.00	3.00

STONE HEADS.—Newark, N. J.—We are informed that the following bids were received Dec. 5, for furnishing and constructing stone heads to subways Nos. 1 and 2, under driveway at Branch Brook Park, advertised in Engineering News; A. Church, Secy. Essex County Park Comn., 800 Broad St.:

Bids Received at Newark, N. J., Dec. 5, 1898, for Furnishing and Constructing Stone Heads to Subways.

	Earth excavation, 45,000 cu. yds.	Vitrified pipe, 24-in., 700 lin. ft.	Vitrified pipe, 12-in., 700 lin. ft.	Vitrified pipe, 4-in., 2,000 lin. ft.	2-in. tile, 10,000 lin. ft.	3-in. tile, 1,800 lin. ft.	Brick masonry, 75 cu. yds.	Rubble masonry, 25 cu. yds.	Concrete, 20 cu. yds.	Cast iron, 5,000 lbs.	Granite curb, 350 lin. ft.	Telford roadway, 15,000 sq. yds.	Total.
Ludwig Batt, So. Orange, N.J.	$11,025	$886	$245	$440	$1,100	$216	$562	$100	$75	$125	$525	$7,425	$22,525
Wright & Lindsley, Orange, N.J.	15,750	1,750	350	750	900	216	750	175	120	150	245	8,550	29,706
O'Connor & McManus, Newark.	15,750	805	315	620	1,800	342	675	131	100	175	612	9,750	31,076
Fell & Minahan, Orange, N. J.	12,150	1,120	350	800	1,000	180	675	162	110	150	332	9,000	26,030
F. C. O'Reilly, Orange, N. J.	13,500	910	525	1,000	1,400	288	825	150	120	175	437	9,750	29,081
John T. Shanley, Newark, N.J.	18,900	959	616	1,300	2,300	486	960	150	115	187	437	12,750	39,161

PARK WORK.—Brooklyn, N. Y.—The park commissioners, the Arsenal, Central Park, Manhattan, received the following bids Dec. 8, 1898, for certain park work, to cost in all about $40,000: Grading, curbing, guttering and paving with macadam pavement, Fort Hamilton Ave., from 79th St. to the shore of New York Bay, and keeping the same in good repair for one year from date of acceptance of the completed work; total length of improvement, 6,800 lin. ft.:

Bidder.	Excavation, 9,620 cu. yds.	Curbing, 13,480 lin. ft.	Belgian blk. gutter, 3,025 sq. yds.	Brick pavting, 250 sq. yds.	Macadam paving, 31,785 sq. yds.
Borough Const'n Co.	$0.12	$0.42	$1.25	$2.25	$0.60
Thos. F. Byrnes	.20	.47	1.20	2.15	....
Mack Paving Co.	.24	.54	1.50	2.25	.74
Edw. W. Roach	.175	.53	1.67	1.79	.97
John F. Mailie	.18	.38	1.10	1.50	.61
C. H. Cornell	.20	.45	1.50	2.30	.50
Henry J. Mullen	.20	.45	1.30	2.15	.60
Pierce Bros.	.22	.50	1.44	2.50	.80
DeWitt C. Bouker	.22	.60	1.50	2.00	.75
Newman & Co.	.10	.45	1.25	2.00	.70
Charles Hart	.29	.55	1.75	2.57	.70
Geo. F. Doak	.27	.67	2.07	3.00	.77
Denis Norton	.20	.55	1.39	2.73	.73
Frank J. Gallagher	.30	.48	1.60	2.43	.84
P. Fruh & J. Siegretto	.27	.50	1.10	1.80	.55
Thos. P. Murphy	.19	.47	1.53	2.50	.585
Brown & Quinn	.28	.33	1.50	2.25	.85
Thomas Monahan.	.15	.50	1.20	1.50	.70
Wm. H. Masterson	.30	.45	1.60	1.89	.58
Manhattan Const'n Co.	.10	.20	.75	2.50	.59

Garden mould, 3,000 cu. yds. for Red Hook Park, and 3,000 yds. for Fort Green Park: DeWitt C. Bouker, $1.65 a cu.yd.; J. Frank Quinn, $1.40; Harris & McGuire, $1.50; John F. Mailie, 68 cts.; F. O'Brien, $1.28; John M. Fox, 68 cts.; Denis Norton, 73 cts. For constructing wrought-iron picket fence along the 15th St. and Coney Island Ave. boundaries of Prospect Park, 4,100 lin. ft., set in granite foundations: M. J. Drummond, $3.40 a lin. ft.; Herman I. Hawk, $2.75; Eastern Stone Co., $3.40; Michael J. Dady, $3.21; Acker & Bloom, $3.41; Kelly & Kelly, $2.22; Paph & Spindle Iron Co., $2.65; P. Fox and James Dillon, $4.05; Heckla Iron Works, $2.19; Van Dorn Iron Works, $1.85; and P. J. Carlin & Co., $2.49. Blue limestone screenings for Ocean Parkway, 500 cu. yds.: N. Ryan, $1.85 a cu. yd.; Calvin Tompkins, $1.69¾; Denis Norton, $1.43; J. Frank Quinn, $1.65, and Harris & McGuire, $1.87½. Gravel screenings for Prospect Park, 800 cu. yds.: J. Frank Quinn, $2.45 a cu. yd.; Harris & McGuire, $2.40, and John F. Mailie, $1.10.

EARTHWORK.—Tampico, Ill.—The following bids were received Dec. 6, by Maj. W. L. Marshall, U. S. Engr., Chicago, for constructing eight miles of feeder of the Illinois and Mississippi Canal, from Mile 9 to Mile 16, inclusive, as advertised in Engineering News; for this work there is available $200,000:

Bids Received at Tampico, Ill., Dec. 6, 1898, for Constructing 8 Miles of Feeder; Illinois & Mississippi Canal.

Bidder.	Miles 9 to 16, inclusive 9, 111,966 cu. yds. cts.	10, 105,778 cu. yds., cts.	11, 132,182 cu. yds., cts.	12, 129,014 cu. yds., cts.	13, 180,520 cu. yds., cts.	14, 180,162 cu. yds., cts.	15, 160,278 cu. yds., cts.	16, 137,237 cu. yds., cts.
Phelan & Drach, Omaha, Neb.	10.5	9.25	25	12.80	12.80	12.80	13.75	13.75
Callahan Construction Co., Omaha, Neb.	9.95	13.75	17.75	12.75	12.75	12.75	14	14
E. V. Johnson, Chicago, Ill.	....	....	....	11.9	11.9	11.9	....	....
Cogan & Pound, Chicago, Ill.	12	15	50	35	35	35	25	25
M. Riley & Co., Chicago, Ill.	12.75	16.5	12.64	15	15	15	17.5	17.5
Corbett & Currie, Chicago, Ill.	....	9.45	16.95	....	....	....	....	....
John J. McCaughey, Summit, Ill.	10.92	13.84	24.5	24.5	24.5	24.5	24.5	24.5
McArthur Bros. Co., Chicago, Ill.	....	....	16	16	16	16	16.5	16.5
John Berhery, New York	8.40	8.40	16.5	13.45	13.45	13.45	13	13
Bryne & Shortall, Chicago, Ill.	....	....	....	13.9	13.9	13.9	12.9	12.9
T. W. Kinser & Sons, Boston, Mass.	9	9	18	11	11	11	10	10
Canal Construction Co., Chicago, Ill.	....	....	....	14	14	14	11.9	11.9

PAVING.—Baltimore, Md.—The following bids were received Dec. 6, 1898, for paving and repaving Gay St., from Jones Falls to Exeter St., the paving to be on a 6-in. sand base, the blocks to be jointed with tar and asphalt; O. W. Cormet, Acting City Comr.:

Quantities.		Southern Asp. Paving Co.	I. S. Filbert.	J. L. Robertson.*
Grading	800 cu. yds.	$0.43	$0.39	$0.40
Belgian blk pav'g.	1,550 sq. yds.	2.18	1.99	1.79
New flagstones	600 sq. ft.	.33	.35	.30
10-in. g't'rstones	100 lin. ft.	.30	.30	.25
6-in. (strght) crb	50 " "	1.10	.87	.85
6-in. (circlr) crb	16 " "	2.62	1.60	.70
Belgian blk repavg	1,100 sq. yds.	.87	.87	.79
Old 6-in. crb, reset	950 lin. ft.	.17	.135	.12
6-in. crb rejnted	25 joints.	.17	.15	.12
G. stones, reset.	1,000 lin. ft.	.06	.04	.06
Rejointed	50 joints.	.12	.10	.10
Flagstones, reset	716 sq. ft.	.08	.12	.10
Rejointed	200 " "	.05	.05	.10
Cobble repaving	4,000 " "	.04	.03	.045
Restg crb cross sts	100 lin. ft.	.12	.15	.10
Total		$5,476	$5,071	$4,702

*Accepted.

RENT OF WAGONS, ETC.—Chattanooga, Tenn.—The following bids were received by the board of public works, Nov. 29, 1898, for the use of garbage wagons, etc., for the coming year: Garbage Wagons—T. N. Cunningham, one-horse wagon, 15 cts. per hour; 2-horse wagon, 22½ cts. per hour; G. L. Gillespie, one-horse, 15 cts.; 2-horse, 25 cts.; Whiteside & Carbough, one-horse, 15¼ cts.; 2-horse, 21 cts.; G. M. Masterson, one-horse, 13 cts.; 2-horse, 20 cts.; B. Benkonitz, one-horse, 14 cts.; 2-horse, 19 cts.; J. F. Bryan, one-horse, 15½ cts.; 2-horse, 25 cts.; R. P. Mann, one-horse, 14 cts.; 2-horse, 20 cts. Street-Cleaning Wagons—T. N. Cunningham, street sweeper horses, 35 cts. per hour; sprinkler wagon, with driver, 25 cts. per hour; without driver, 20 cts. per hour; dirt wagon, 25 cts. per hour; G. L. Gillespie, street sweeper horses, 27½ cts.; sprinkler wagon, with driver, 20 cts.; without driver, 15 cts.; dirt wagon, 25 cts.; J. F. Bryan, street sweeper horses, 50 cts.; sprinkler wagon, with driver, 25 cts.; without driver, 20 cts.; dirt wagon, 25 cts.; R. M. Mann, street sweeper horses, 20 cts.; sprinkler wagon, with driver, 20 cts.; without driver, 14 cts.; dirt wagon, 20 cts.; Amos Teppenpaw, dirt wagon, 20 cts.

GRAVEL.—Chattanooga, Tenn.—The following bids were received by the board of public works, Nov. 29, 1898, for furnishing f. o. b. Chert gravel for the year: Alex. Bonnyman, 60 cts. a cu. yd.; Geo. L. Gillespie, 70 cts.; delivered, 95 cts.; H. L. Bible, 63 cts.; delivered, 83 cts.; J. F. Bryan, 89 cts.; delivered, 89 cts.; Aaron Shimpaw, 53 cts. (accepted).

SNOW REMOVAL.—New York, N. Y.—The street cleaning commissioner received the following bids, Dec. 9, 1898, for removing snow: Herbert Tate, 37½ cts. a cu. yd.; Bart Dunn, 321 East 81st St., New York, 30 cts.; American Transfer Co., 33.4 cts.; Edwin J. Schaefer, 38 cts.; National Contracting Co., 39½ cts. The contract was let to Bart Dunn. Last year the contract was awarded to G. M. Furman, at 36 cts. a cu. yd.

DREDGING.—Brooklyn, N. Y.—The following bids were received by the department of sewers, 265 Broadway, Manhattan, for 7,000 cu. yds. of dredging in New York Bay at the foot of 49th St., Brooklyn: Dubois Bros., 29½ cts. a cu. yd.; total, $2,065; Wm. H. Taylor, Jr., 23¼ cts.; total, $1,645.

PAVING.—Council Bluffs, Ia.—E. A. Wickham & Co., Council Bluffs, has been awarded the contract, at $1.27½ a sq. yd., for paving in Harrison St. and Washington Ave. with Council Bluffs brick bottom and top courses. Bids were also received for asphalt paving, based on 5, 7 and 10-year guarantees, as follows: Barber Asphalt Co., 5-year guaranty, $2.05 to $2.60; 7-year guaranty, $2.15 to $2.70; 10-year guaranty, $2.30 to 2.85; E. A. Wickham & Co., 5-year guaranty, $1.92½ to $2.47; 7-year, $2.03½ to $2.56¼ 10 year, $1.18½ to 2.71¼; Hugh Murphy, 5-year guaranty, $1.39 to $2.45; 7-year, $1.99 to $2.57; 10-year, $2.27 to $2.78. The following are the bids for brick paving: Frank Cooper & Co.—A-1: Des Moines brick, $1.69 and $1.80; Galesburg, $1.745 and $1.87; St. Joseph, $1.70 and $1.95; Council Bluffs, $1.51 and $1.65. B-1: Council Bluffs, top and bottom, $1.285 and $1.395; Des Moines and Council Bluffs, $1.48 and $1.535; St. Joseph and Council Bluffs, $1.48 and $1.90; Atchison and Council Bluffs, $1.48 and $1.90. E. A. Wickham & Co.—A-1: Des Moines, $1.67 and $1.79; Galesburg, $1.73 and $1.85; Council Bluffs, $1.52 and $1.67. B-1: Des Moines and Council Bluffs, $1.46 and $1.58; Galesburg and Council Bluffs, $1.53 and $1.67; Council Bluffs, top and bottom, $1.275 and $1.39. E. A. Wickham & Co. add 5% to the above prices if payment is made in warrants, and Frank Cooper & Co. add 6%.

ASPHALT PAVING.—Louisville, Ky.—The following bids were received by the board of public works, Dec. 2, 1898, for asphalt paving in certain streets: Assyrian Asphalt Co., 5-year guarantee, No. 1 asphalt, $18.90; No. 2, $18; 10-year guarantee, No. 1 asphalt, $28.90; No. 2, $28; Barbour Asphalt Co., 5-year guarantee, No. 1, $19.50; No. 2, $17.50; 10-year guarantee, No. 1, $24.30; No. 2, $22.30; L. R. Figg, 5-year guarantee, No. 1, $22; No. 2, $21; 10-year guarantee, No. 1, $28; No. 2, $27; Alcatraz Asphalt Co., 5-year guarantee, No. 1, $19.40; No. 2, $17.40; 10-year guarantee, No. 1, $23.40; No. 2, $21.40; Boston Paving Co., 5-year guarantee, No. 1, $18.90; No. 2, $17.90; 10-year guarantee, No. 1, 27.90; No. 2, $26.90. The bids of L. R. Figg and the Boston Paving Co. were rejected as informal, because samples of the asphalt to be used had not been deposited in the office of the board of public works three days before the bids were opened.

INDUSTRIAL NOTES.

THE MICHIGAN CENTRAL BRIDGE CO., Lansing, Mich., is reported to have changed its name to the Detroit River Bridge Co.

THE WATSON MACHINE CO., Paterson, N. J., is reported to have a contract for $50,000 worth of rope making machinery for the Boston Navy Yard.

JOSEPH W. CODY & CO., engineers and general contractors, have removed their offices from 120 Broadway, to the Empire Building, 71 Broadway, New York.

THE GENERAL ELECTRIC CO., Schenectady, N. Y., has an order for eight electric locomotives and other equipment for the Paris, France, underground street railway.

THE CONSOLIDATED STONE CO., Bloomington, Ill., has a contract for 150,000 cu. ft. of Bedford stone, to cost about $27,000, to be delivered in New York for use in a government building on Ellis Island. Mr. E. E. Worthington is president of the company.

THE MURRAY IRON WORKS CO., Burlington, Ia., was awarded a gold medal at the Trans-Mississippi and International Exposition at Omaha, Neb., for its Sioux Corliss engine, which furnished the power used on the grounds, running 24 hours a day during the greater part of the exposition.

THE WEBER RAILWAY JOINT MFG. CO., New York, will remove its principal office on or about Dec. 15, from the Cotton Exchange Building, to rooms 1813 to 1816 Empire Building, 71 Broadway. The company announces also that it has opened a new branch office in the Equitable Building, Baltimore, Md.

THE NEW YORK FILTER MFG. CO., 26 Cortlandt St., New York, through its patent solicitors, has brought suit in the U. S. Circuit Court, Eastern District of Missouri, against Mr. Powell Jackson, trading as the Jackson Filter Co., St. Louis, Mo., to restrain him from manufacturing or selling the Jackson filter which, it is claimed, infringes patent No. 293,740, owned by the plaintiff.

THE EUGENE DIETZGEN CO., of Chicago and New York, has recently put on the market a new paper for positive prints, called "Vandyke Solar Paper." Its principal advantage over ordinary blue-prints lies in the fact that the copies made have either blue lines or black lines on a clear white background. It is claimed by the manufacturers that the paper is easily manipulated, keeps well, does not become brittle, prints rapidly, saves original tracing, and does not spoil positive prints by over-exposure. The same firm has a rapid-printing blue-print paper, with which a blue-print can be made in cloudy winter weather within 7 to 12 minutes, when the regular paper requires an exposure of hours.

J. S. MUNDY, Newark, N. J., shipped a carload of hoisting engines to Chicago last week and a pile driving engine, derrick and hammer to Mexico. The Missouri Pacific R. R. Co. has ordered a double-cylinder, double-drum hoisting engines with a special boiler to be mounted on a pile driving car. An order was recently received from the Horseheads (N. Y.) Bridge Co., for a special bridge-erecting engine at Calicoon, N. Y. The works are also engaged at present in constructing a 38,000-lb. hoisting engine for the Merritt-Chapman Derrick & Wrecking Co. to be placed on a combined lighter and wrecker. The engine has a capacity of 100 tons and has two main hoisting drums, two auxiliary swinging drums and four large extension winches.

Mail Delivery Notice.

Special efforts are made to deliver our paper to its readers each week at the earliest possible moment. The largest binding and mailing establishment in New York begins work on Engineering News early each Wednesday evening, and all papers for Boston, Philadelphia and Washington are usually in the New York post-office by midnight; all Brooklyn and New York city papers by 3 o'clock—in ample time for the first delivery Thursday morning. The entire edition, including foreign copies, is in the mail soon after 6 o'clock Thursday morning. If your paper is not received promptly we advise that you make a complaint to your local post-office officials.

The Circulation of ENGINEERING NEWS among Prominent Contractors Probably EXCEEDS that of any other FIVE PAPERS.

ADVERTISE YOUR WORK IN ENGINEERING NEWS